

FIG. 1

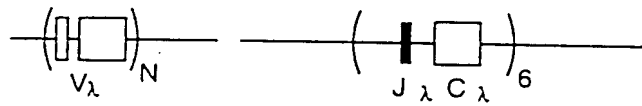


FIG. 2

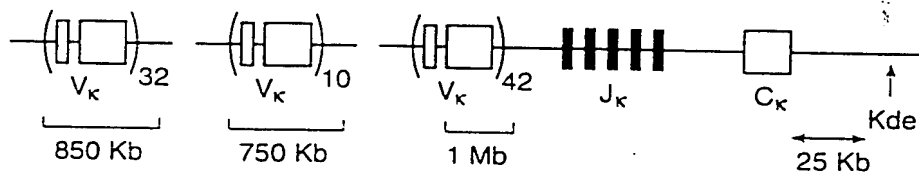


FIG. 3

008277" 99642260

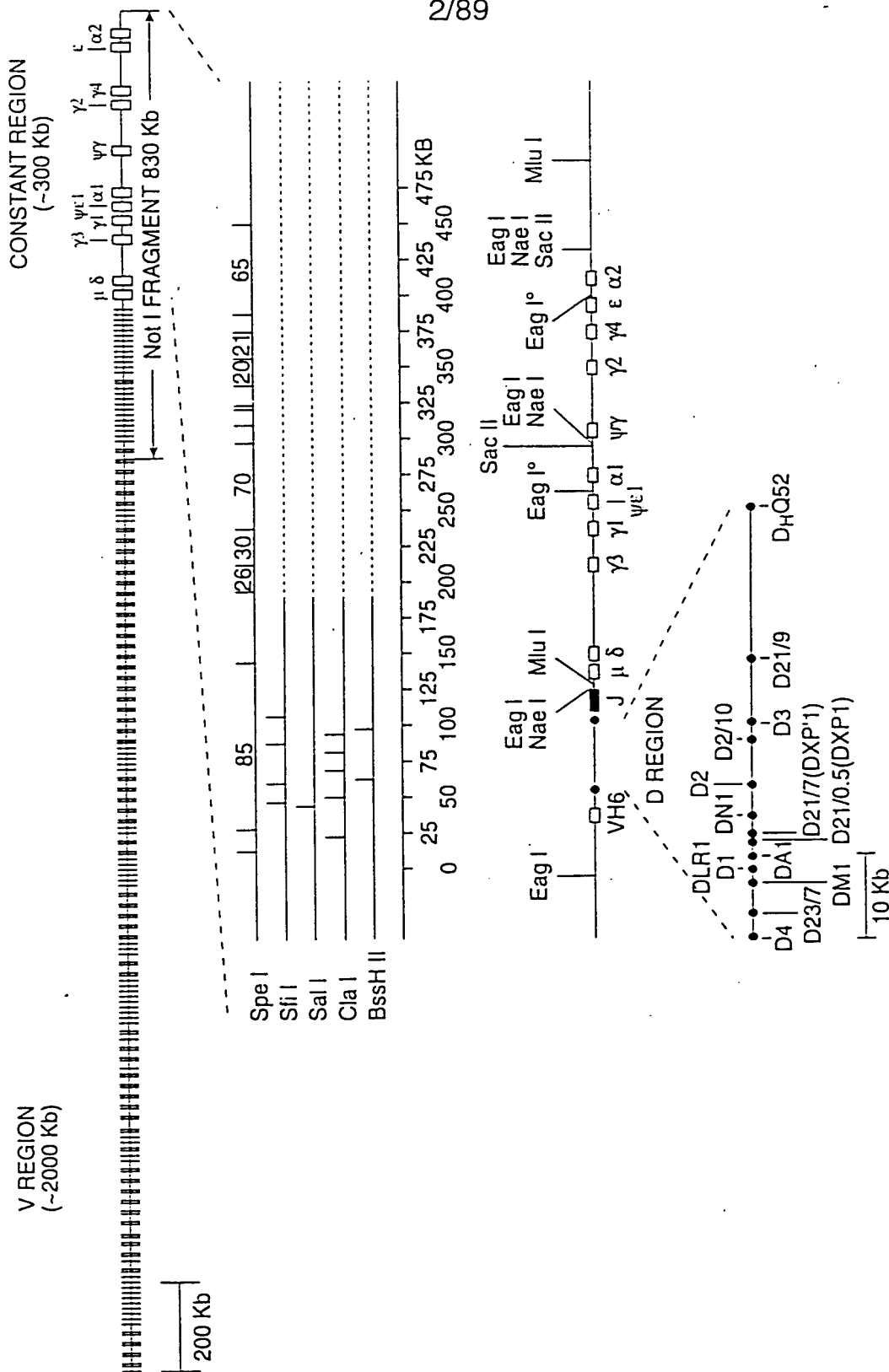


FIG. 4

3/89

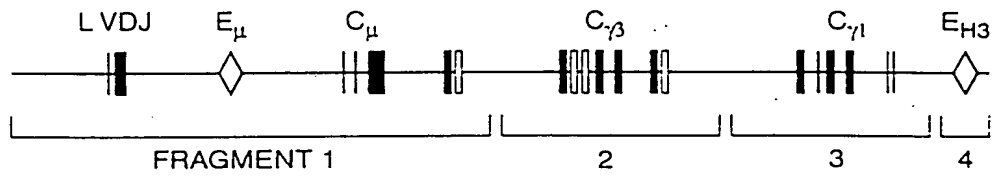


FIG. 5

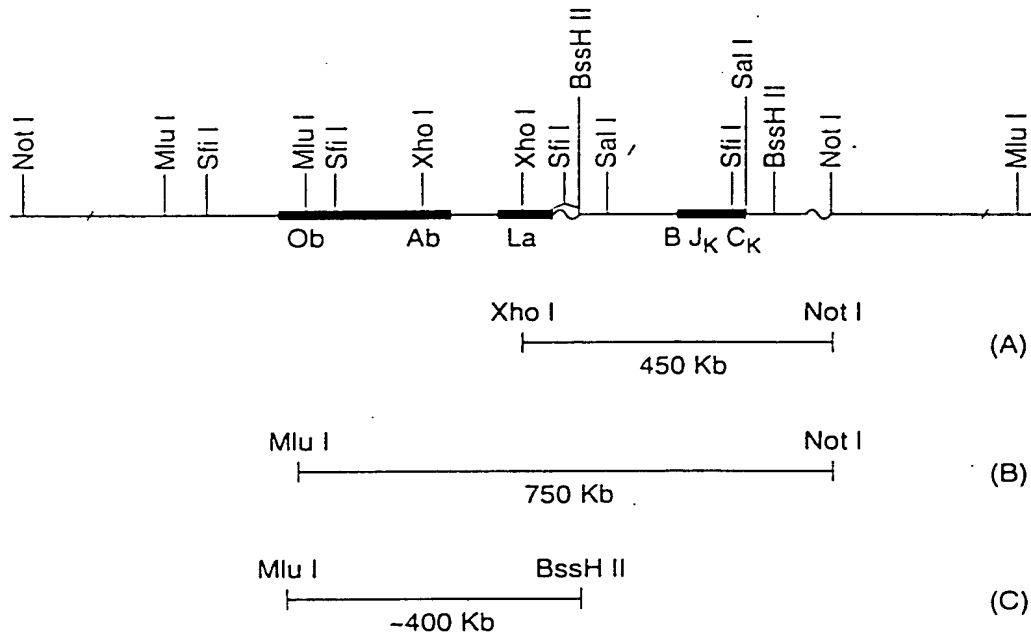


FIG. 6

008211 5964260

4/89

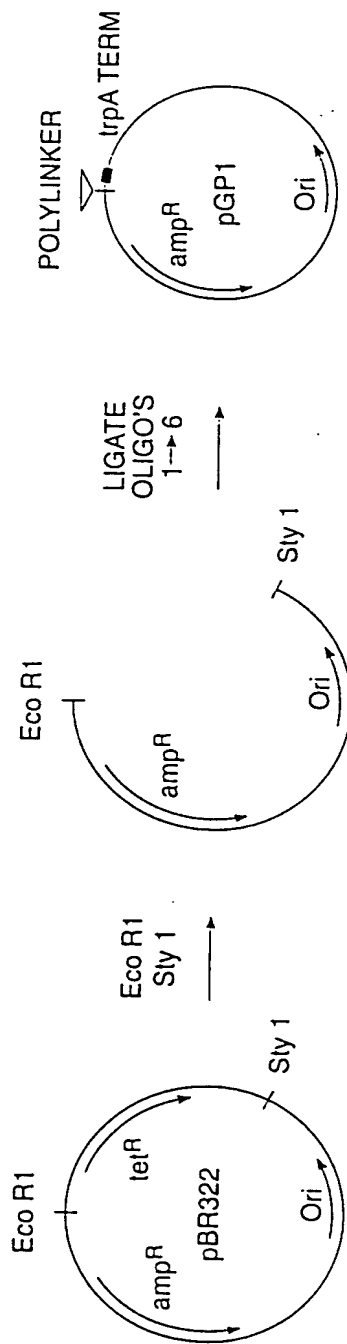


FIG. 7

5/89

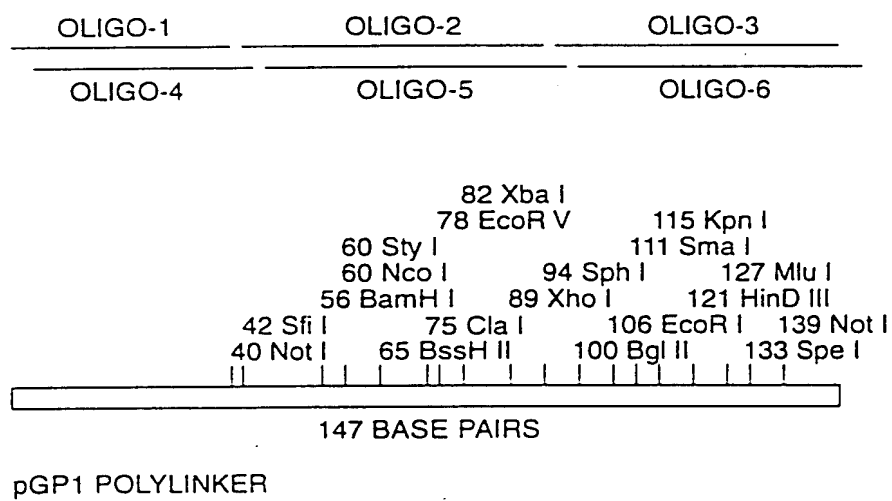


FIG. 8

092495-112800

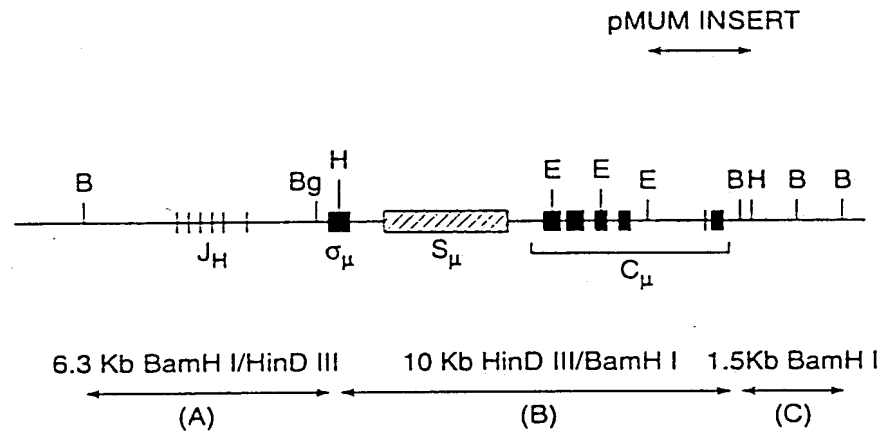
HUMAN μ LOCUS

FIG. 9

0972495-11200

7/89

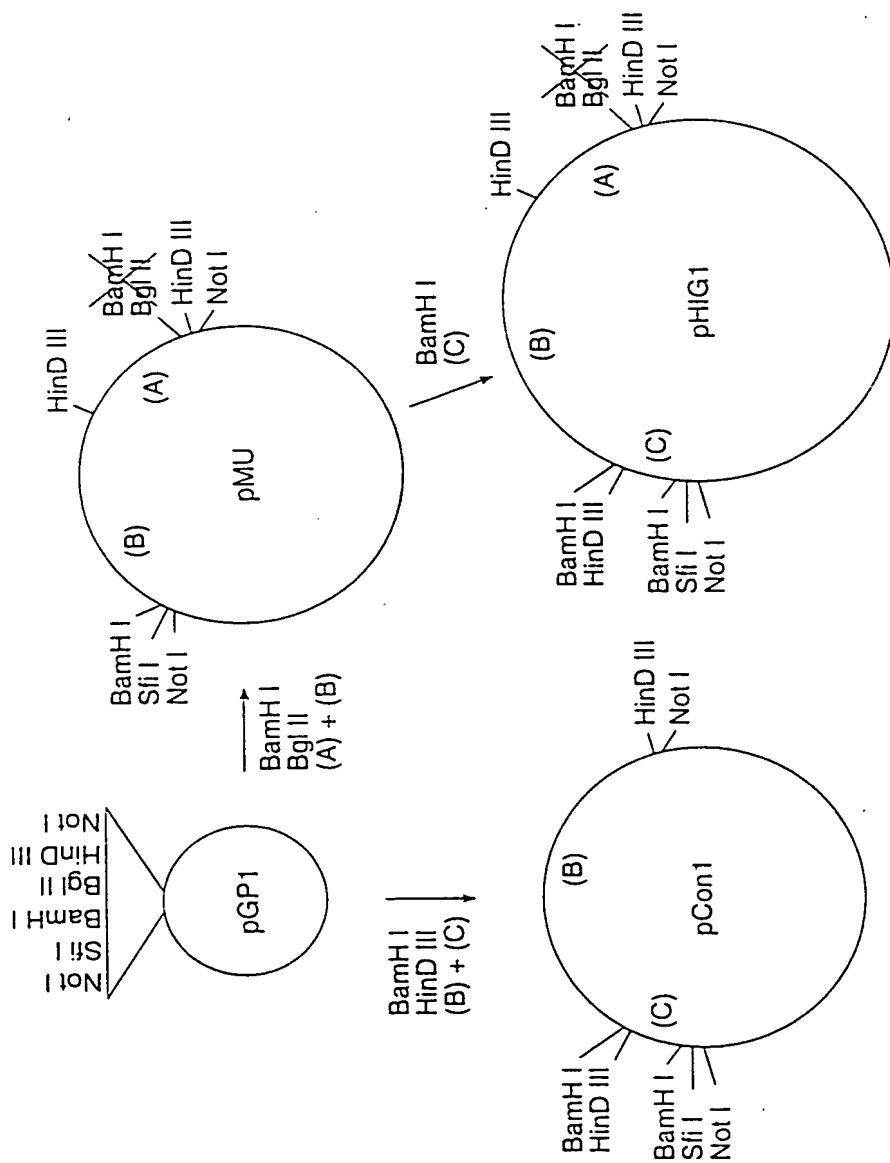


FIG. 10

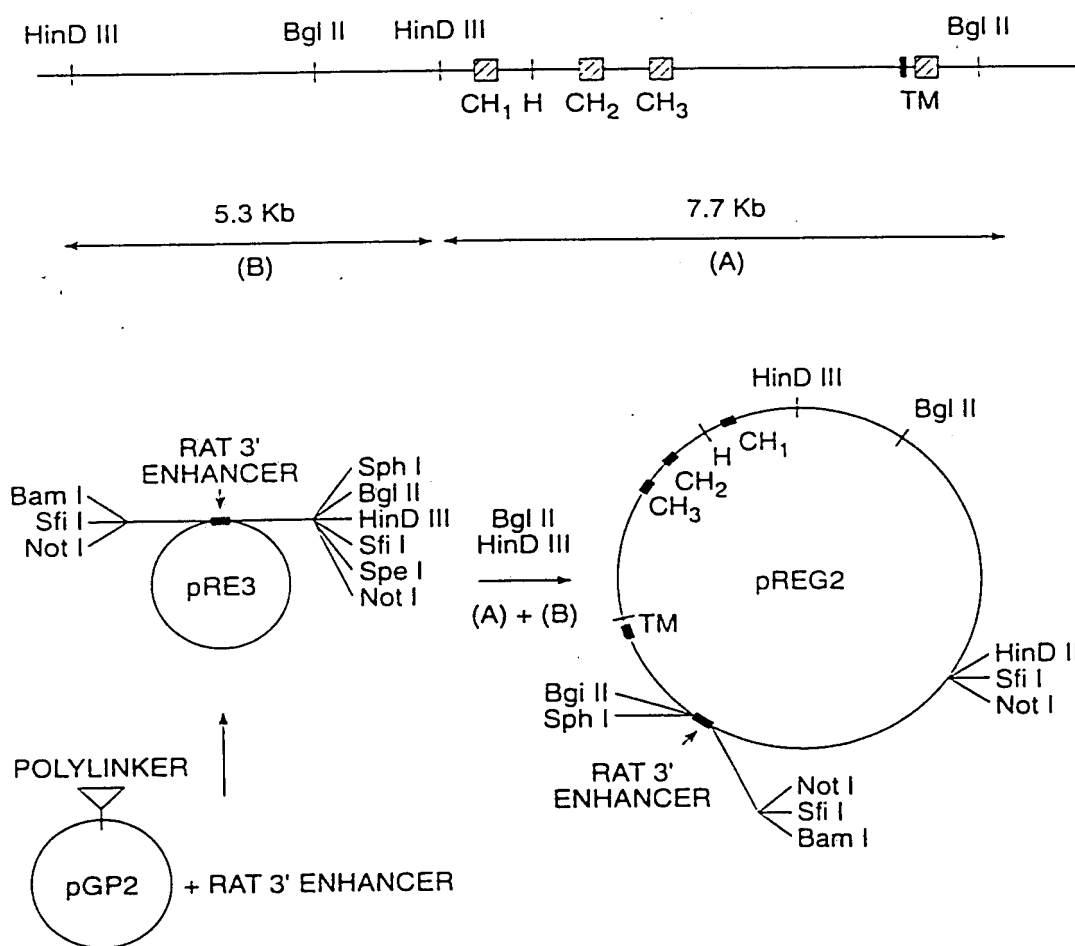
HUMAN C_γ1 GENE

FIG. 11

9/89

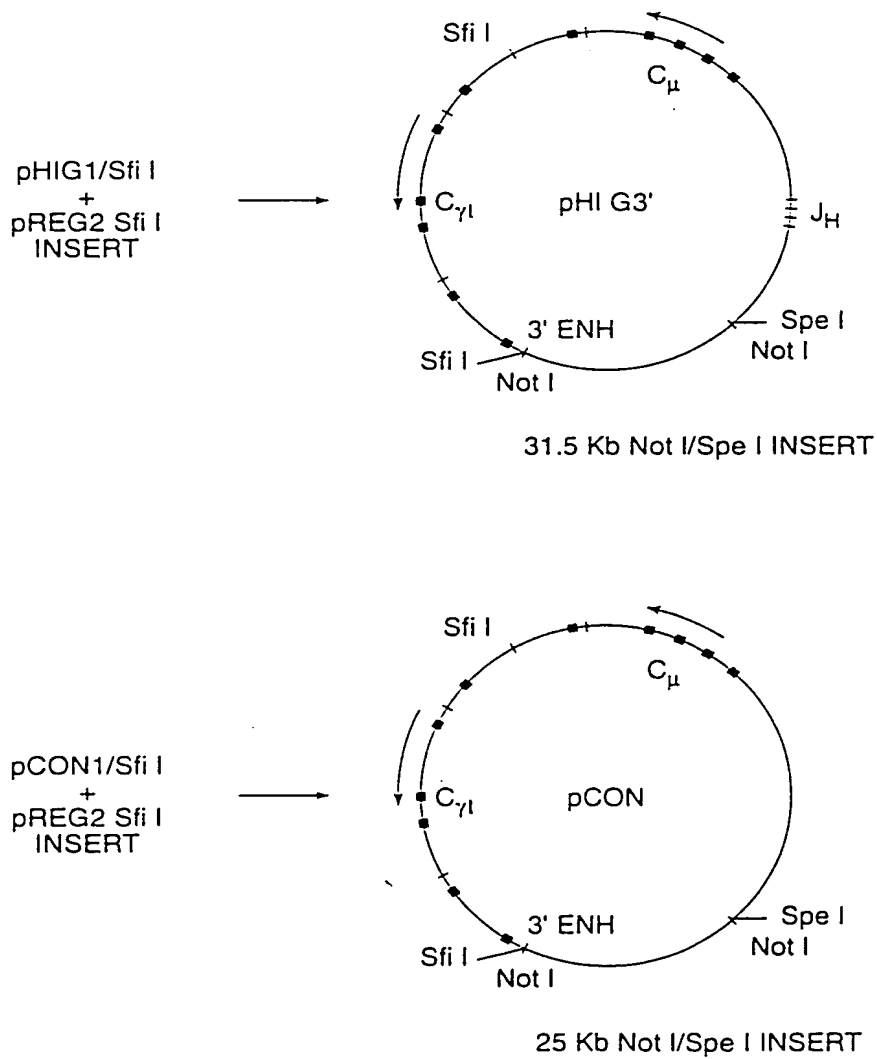


FIG. 12

003277" 5964260

10/89

HUMAN D REGION

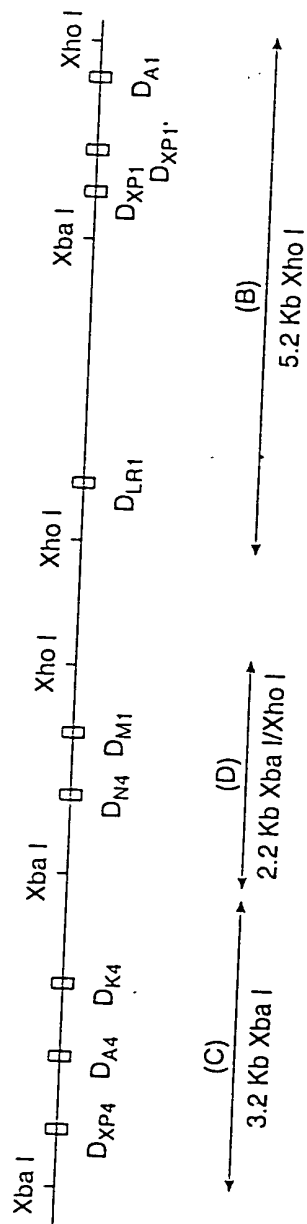


FIG. 13

11/89

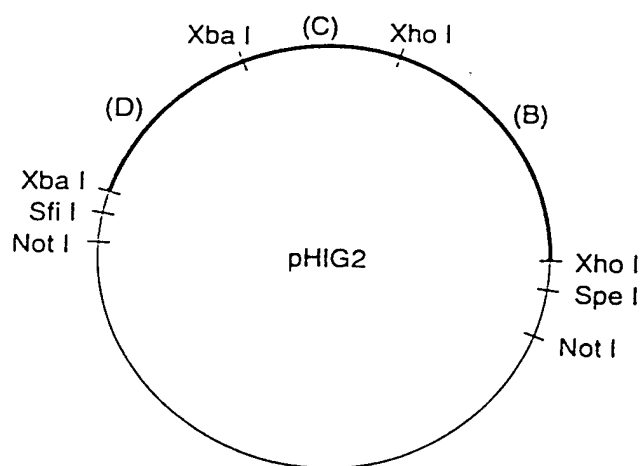


FIG. 14

008277 5964260

12/89

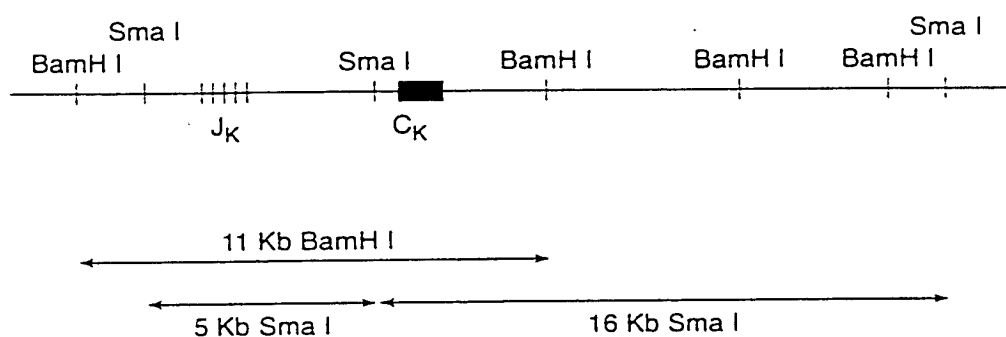


FIG. 15

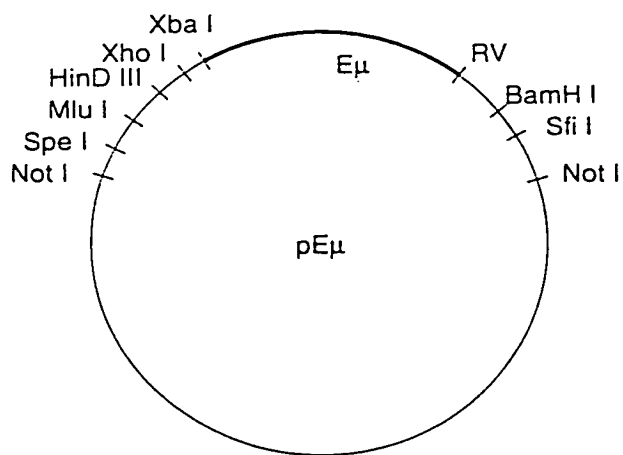


FIG. 16

09724965-112800

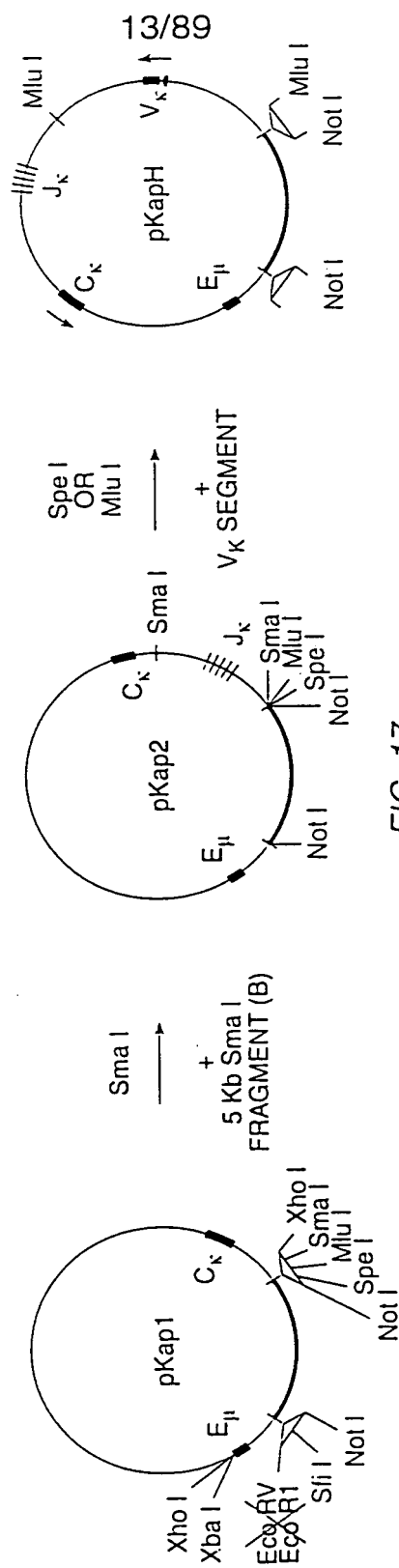


FIG. 17

13/89

14/89

MOUSE HEAVY CHAIN LOCUS

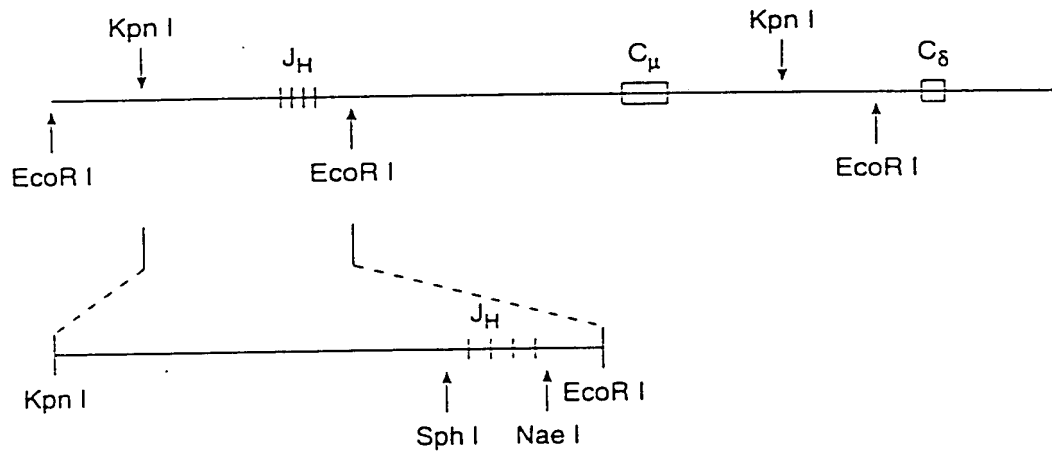


FIG. 18A

003217-59642/60

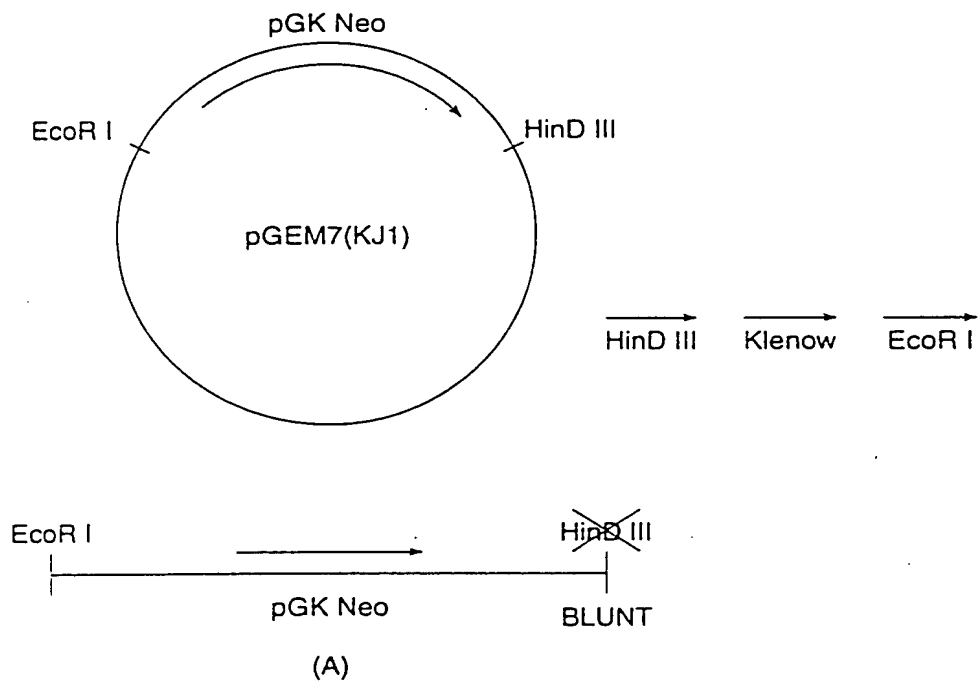


FIG. 18B

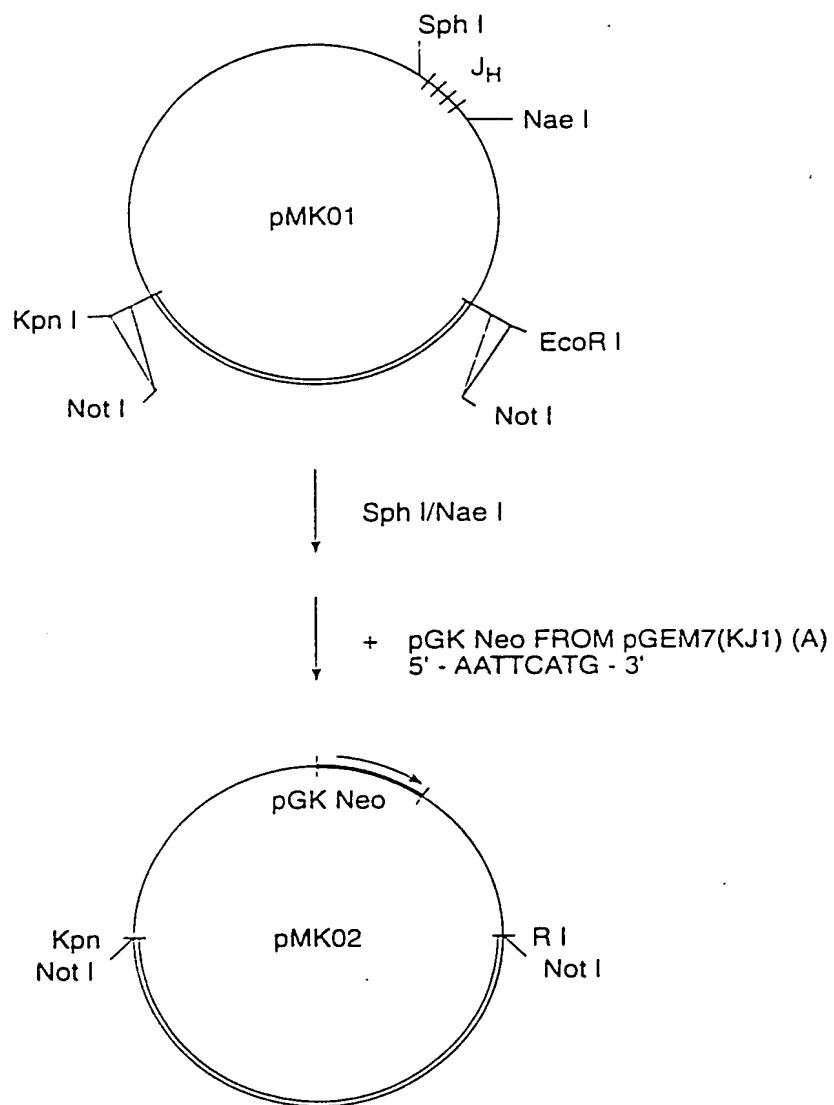


FIG. 18C

00821T" 59642260

17/89

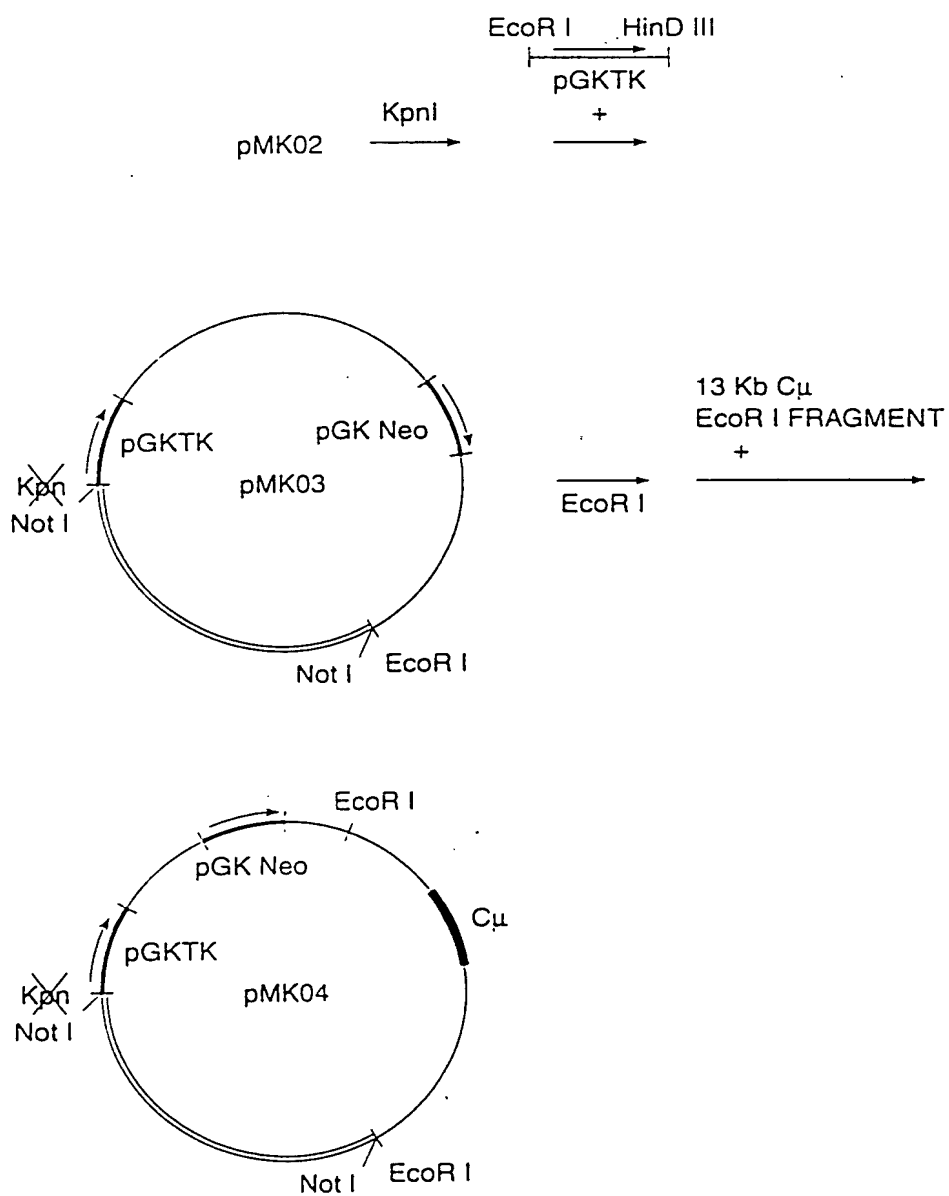


FIG. 18D

09724965-112800

MOUSE KAPPA GENE

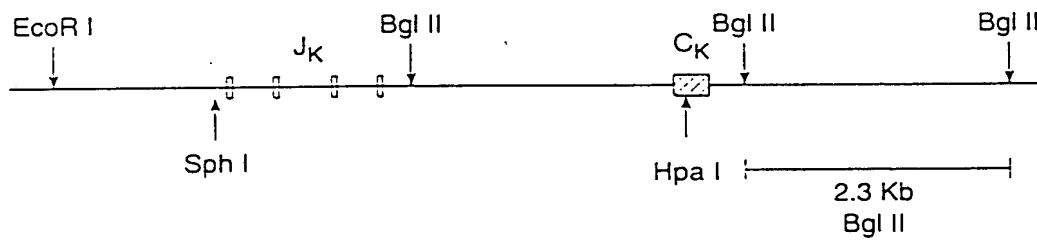


FIG. 19A

008211" 596h2260

19/89

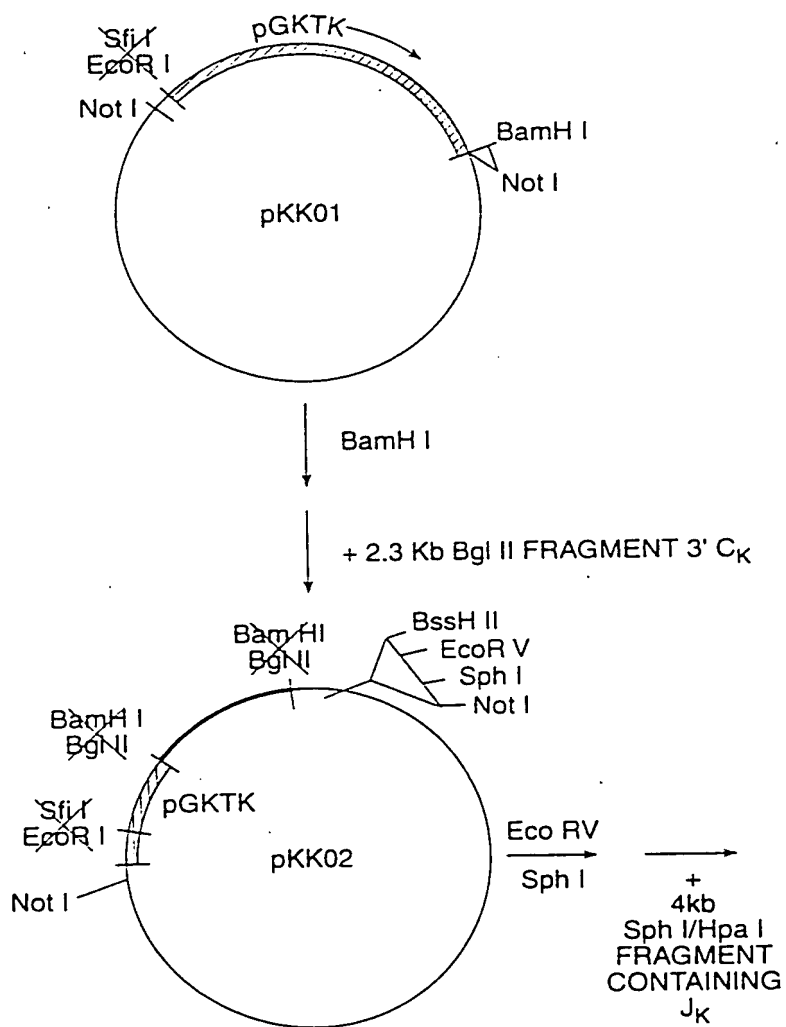


FIG. 19B

09724965-112800

20/89

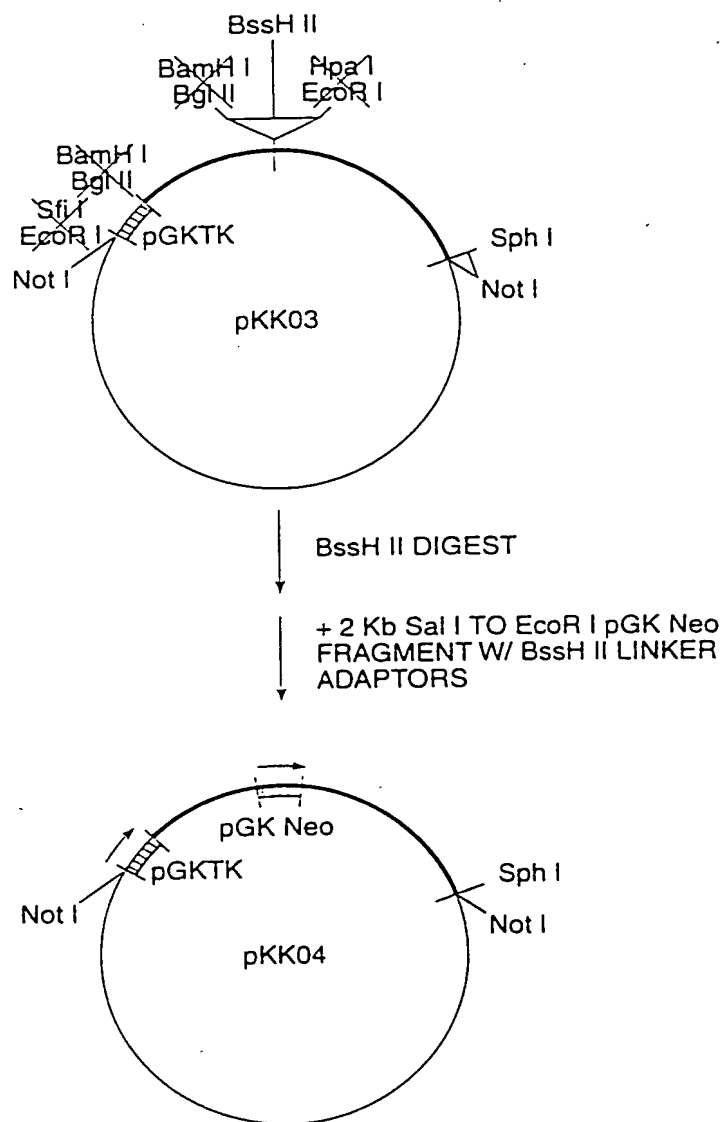


FIG. 19C

09724965-112800

21/89

KAPPA LIGHT CHAIN TARGETING VECTOR

A) GENOMIC KAPPA LOCUS

B) pNEO-K3'

C) pNEO-K3'5'

D) J/C K1

E) TARGETED KAPPA LOCUS

Restriction enzymes used: Sac I, Xho I, Bgl II, Xba I, Pst I, Sph I, EcoR I, Not I, BamH I, Cla I, Hind III.

Other features: TK, NEO, JK, Ck, DIAGNOSTIC PROBE.

FIG. 20

008277" 59642260

MOUSE HEAVY CHAIN TARGETING VECTOR

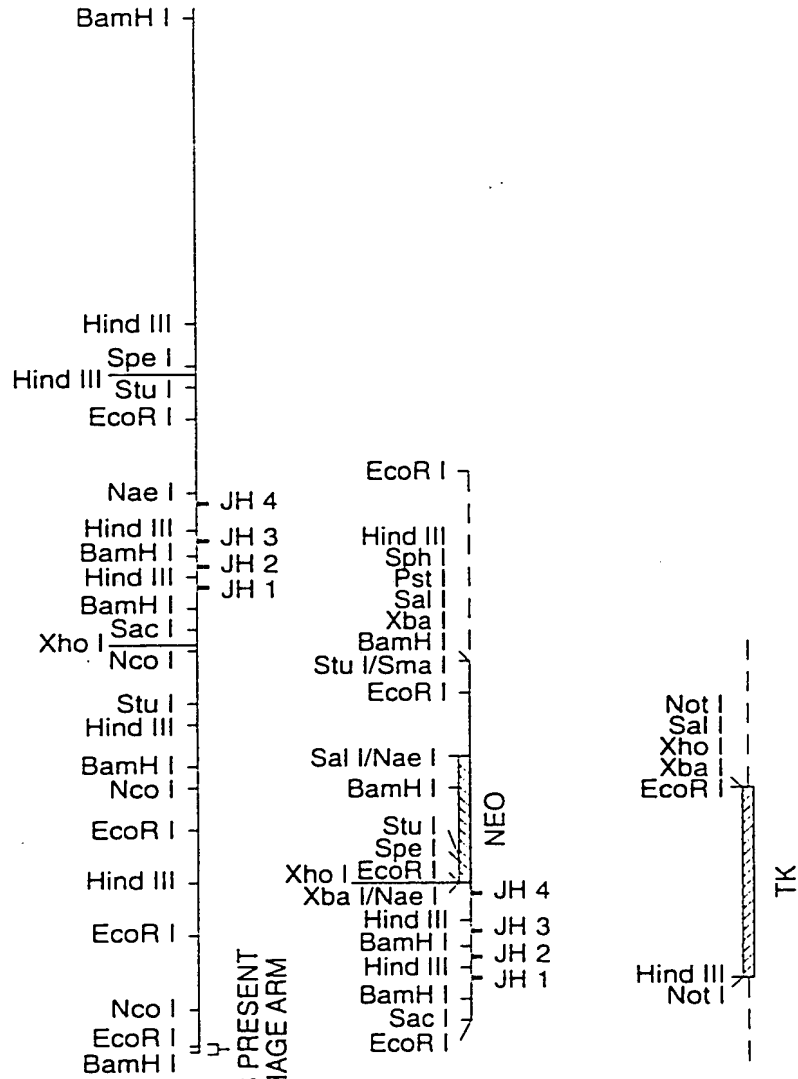


FIG. 21A-C

MOUSE HEAVY CHAIN TARGETING VECTOR

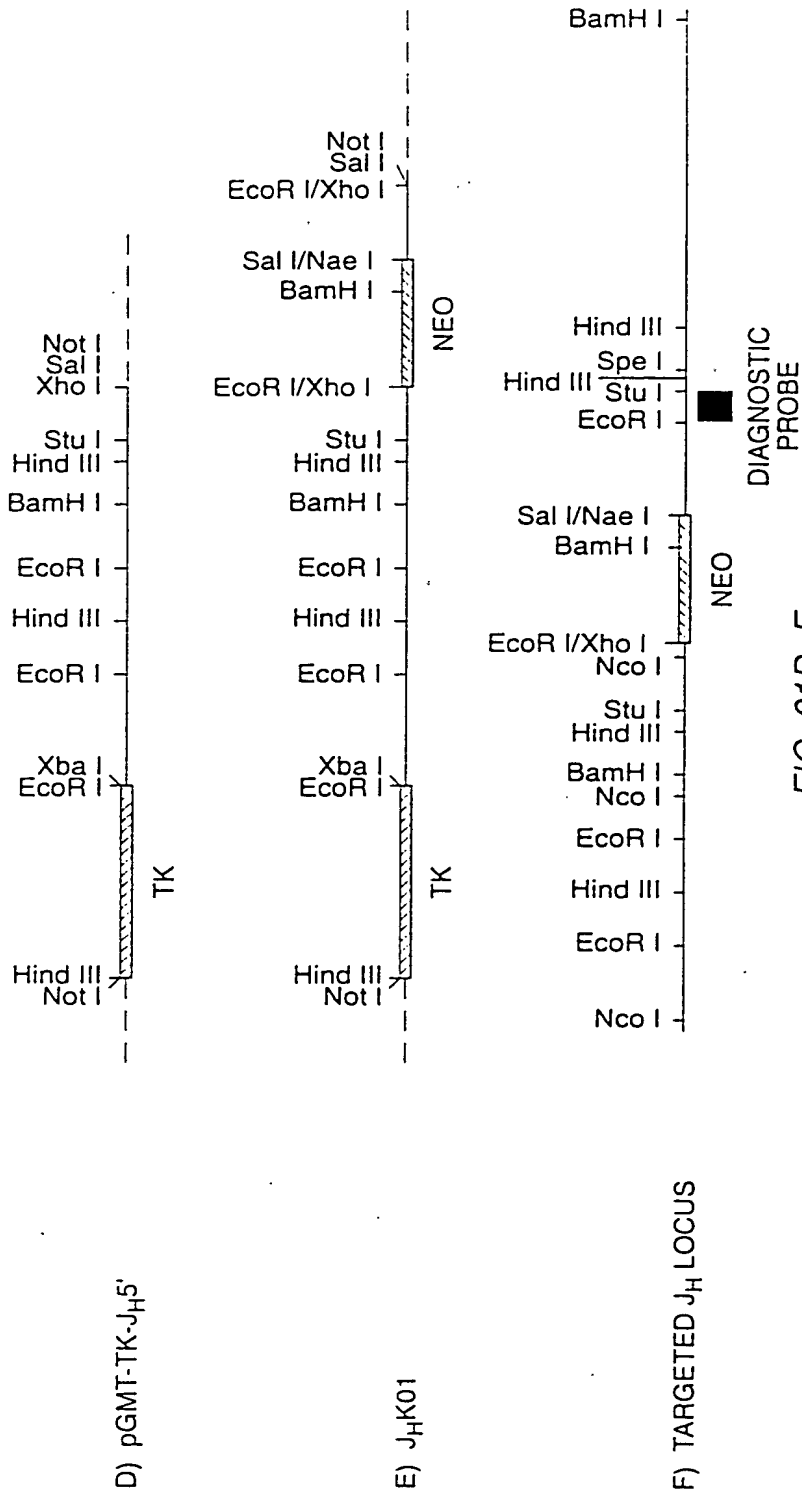


FIG. 21D-F

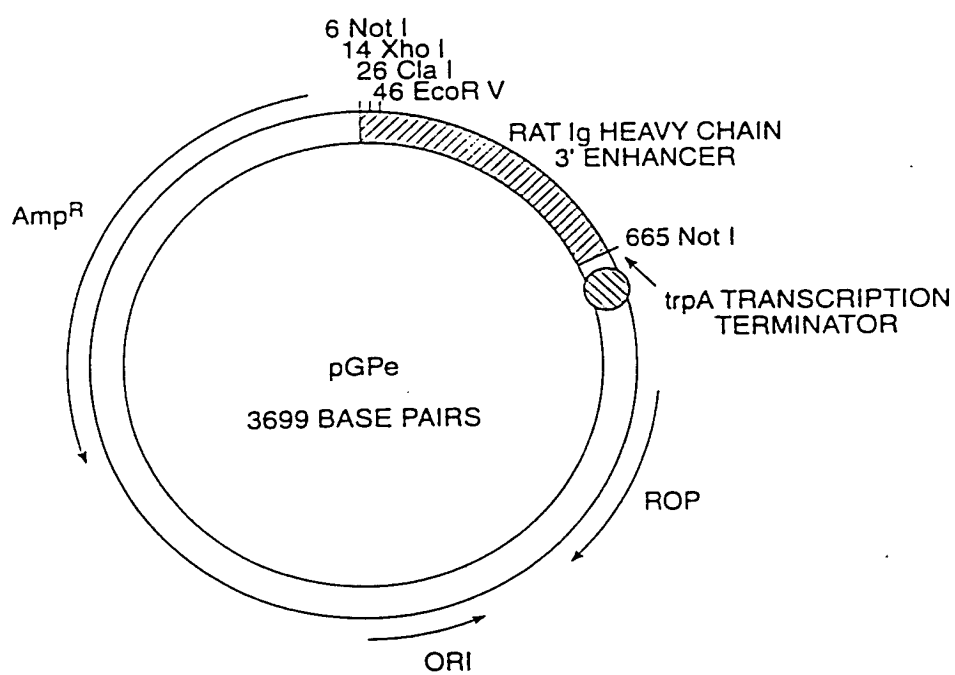


FIG. 22

008277" 5964260

25/89

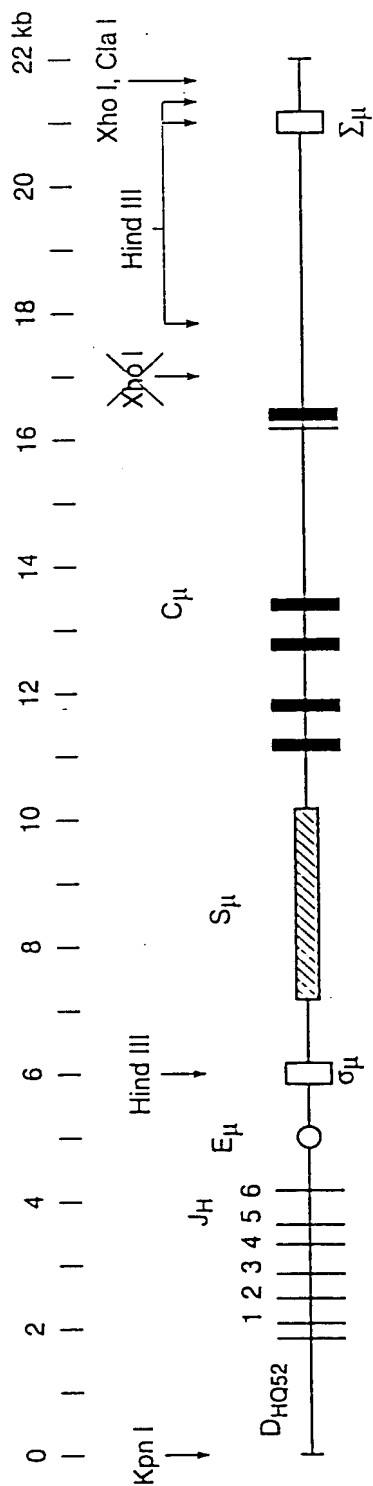


FIG. 23

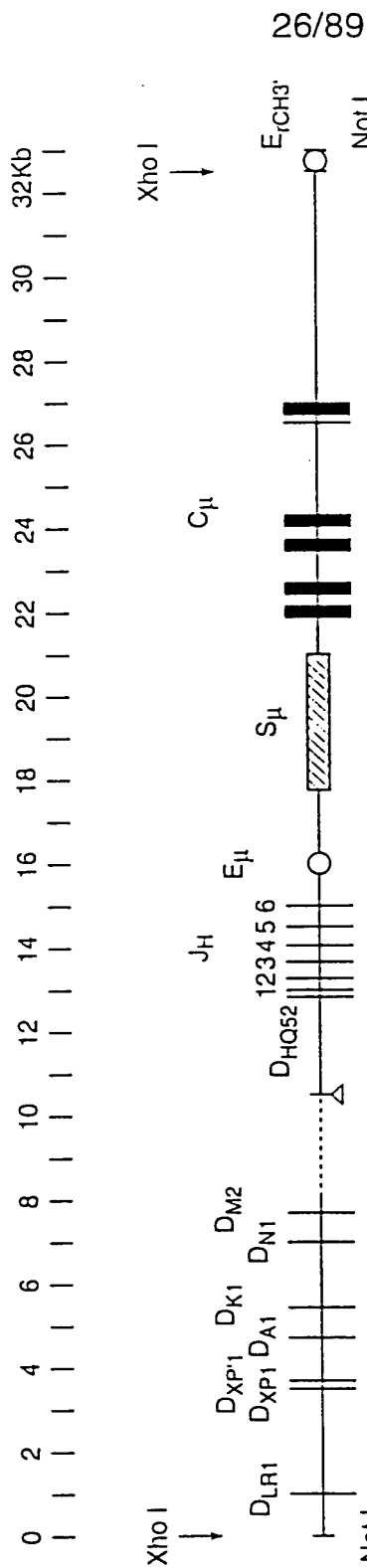


FIG. 24

27/89

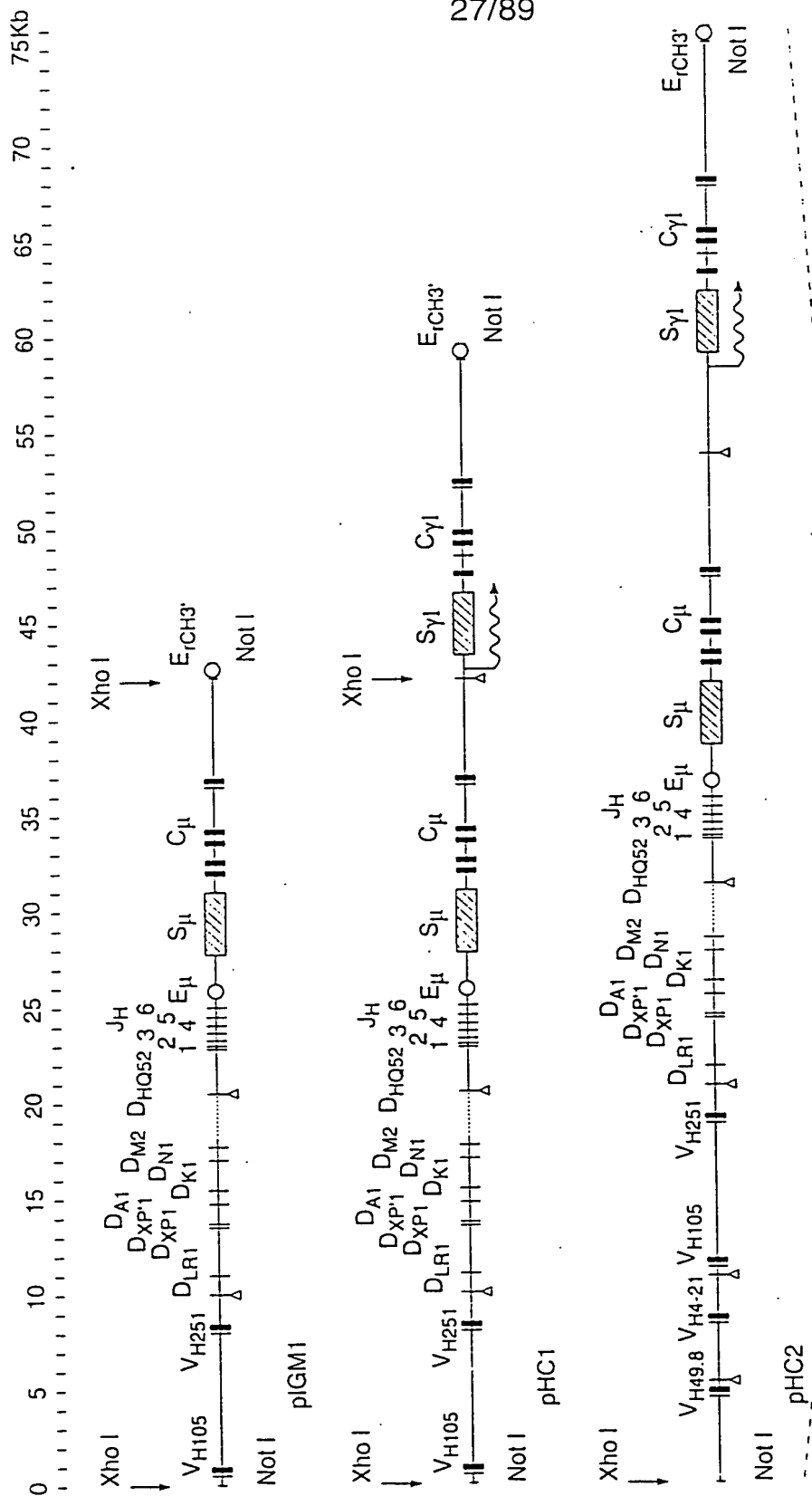


FIG. 25

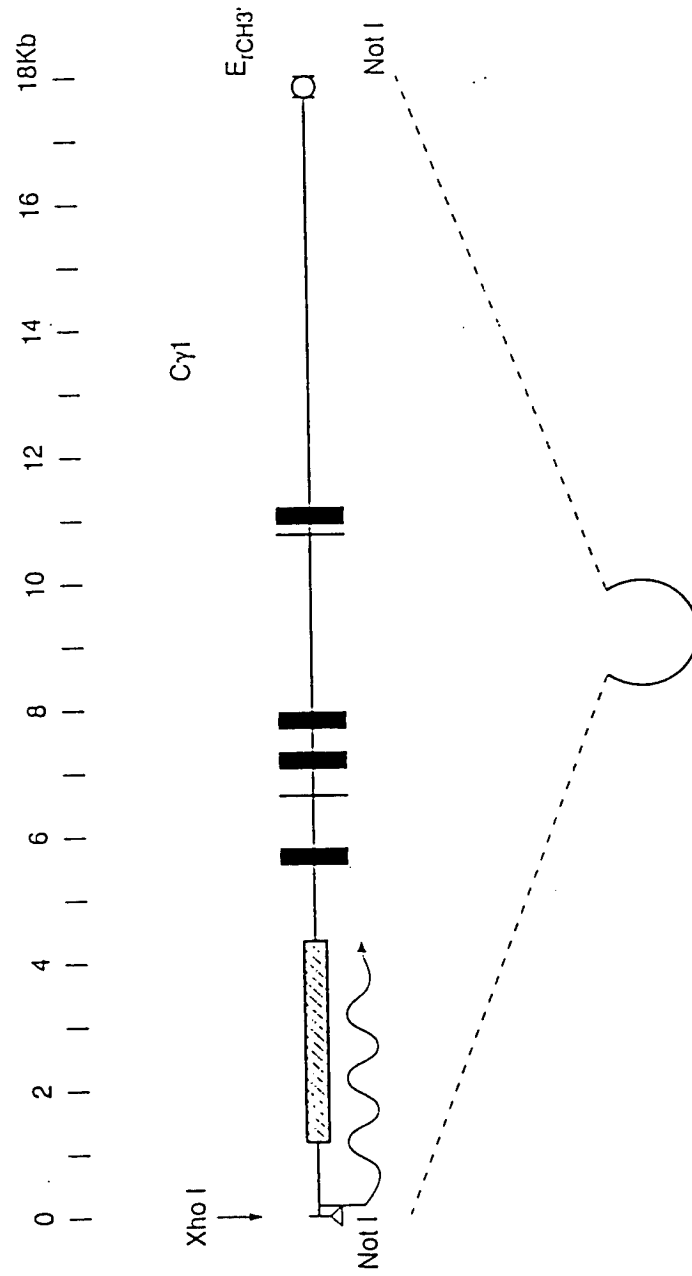
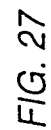
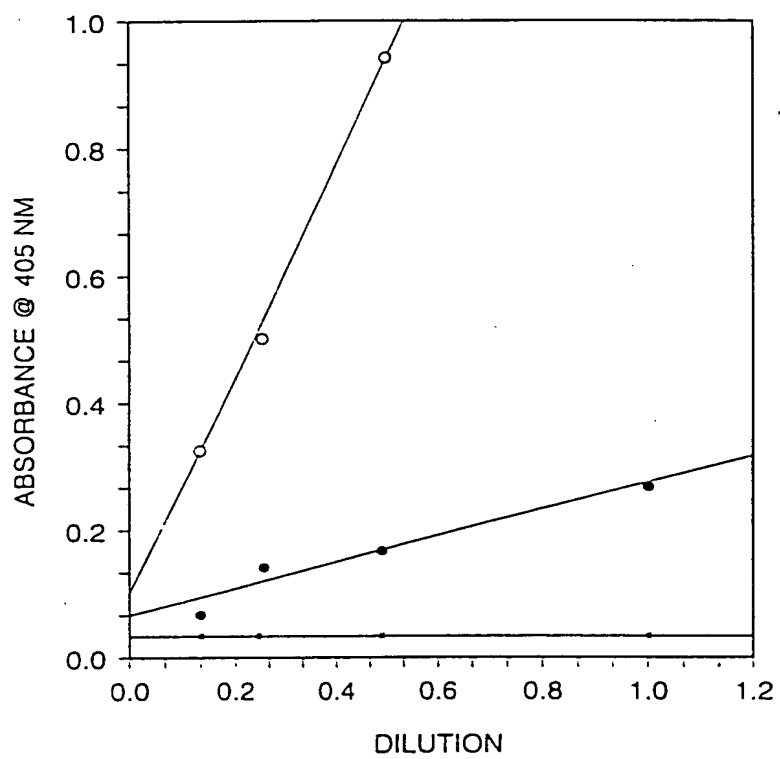


FIG. 26



30/89



○ IgM } pHC1 TRANSGENIC
● IgG1 }
× IgM } NON-TRANSGENIC CONTROL
+ IgG1 }

FIG. 28

31/89

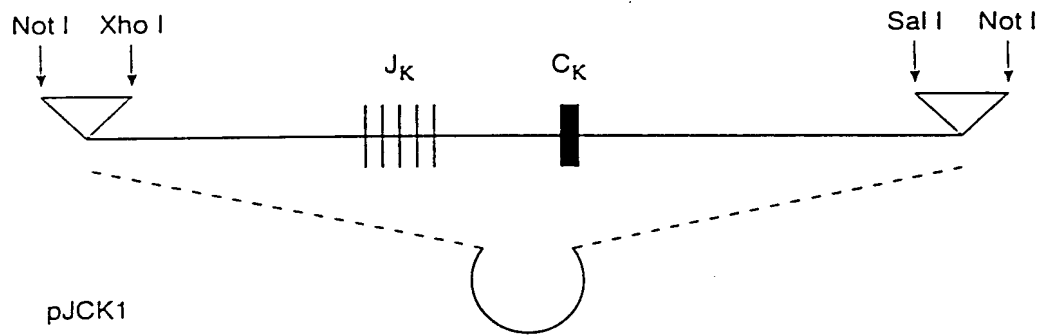
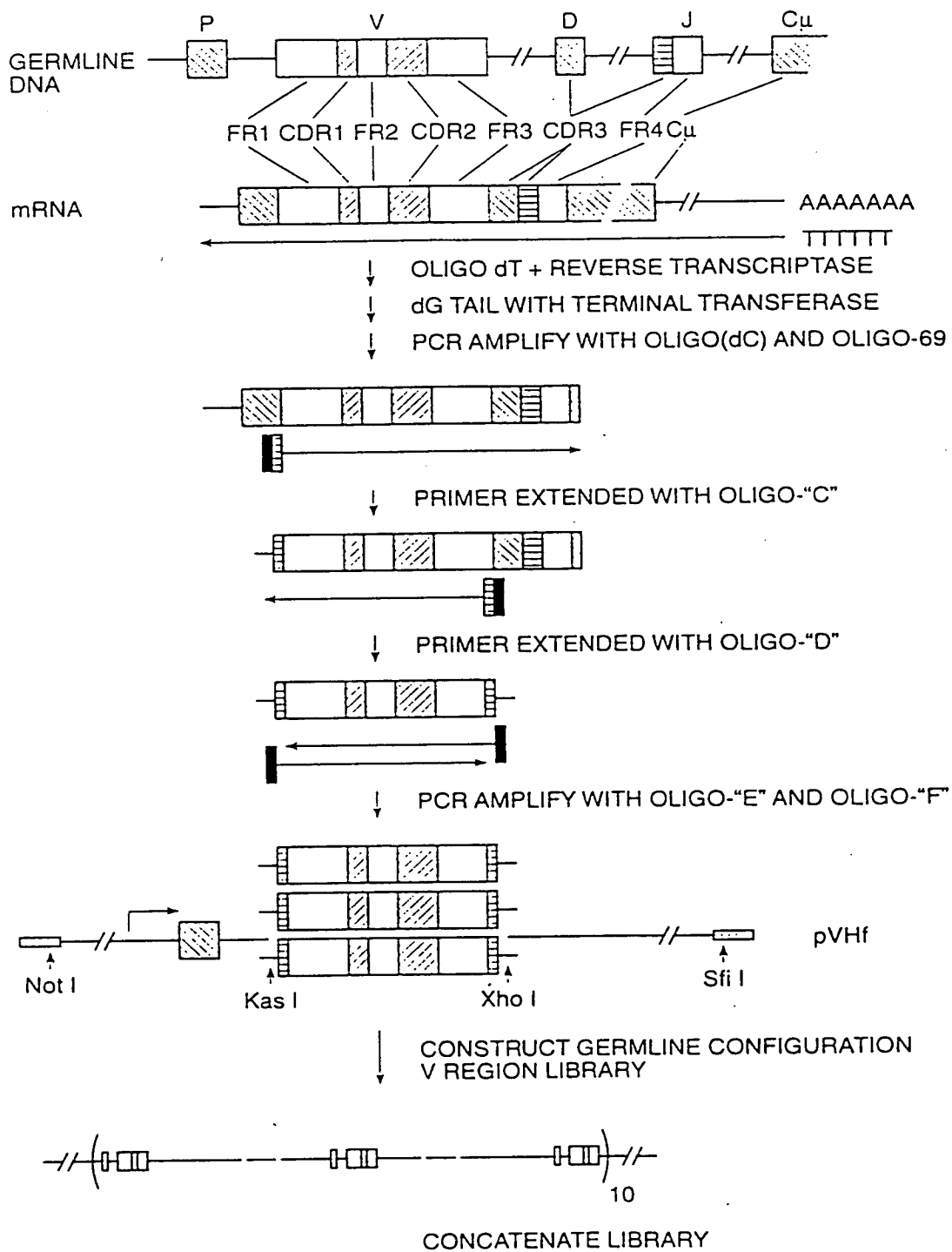


FIG. 29

008277 5964260

32/89



SYNTHETIC HEAVY CHAIN VARIABLE REGION

FIG. 30

09724965-112800

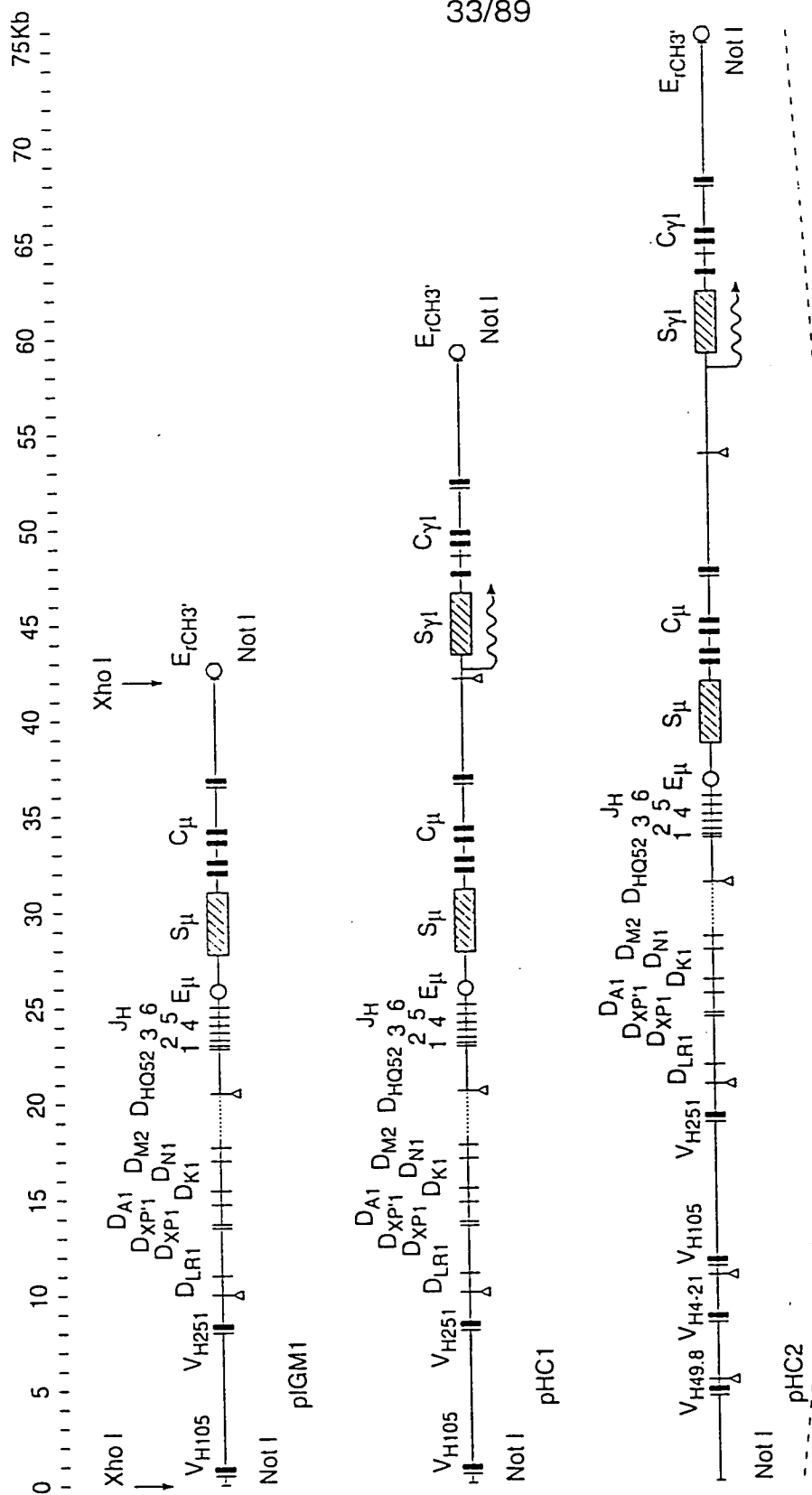


FIG. 31

34/89

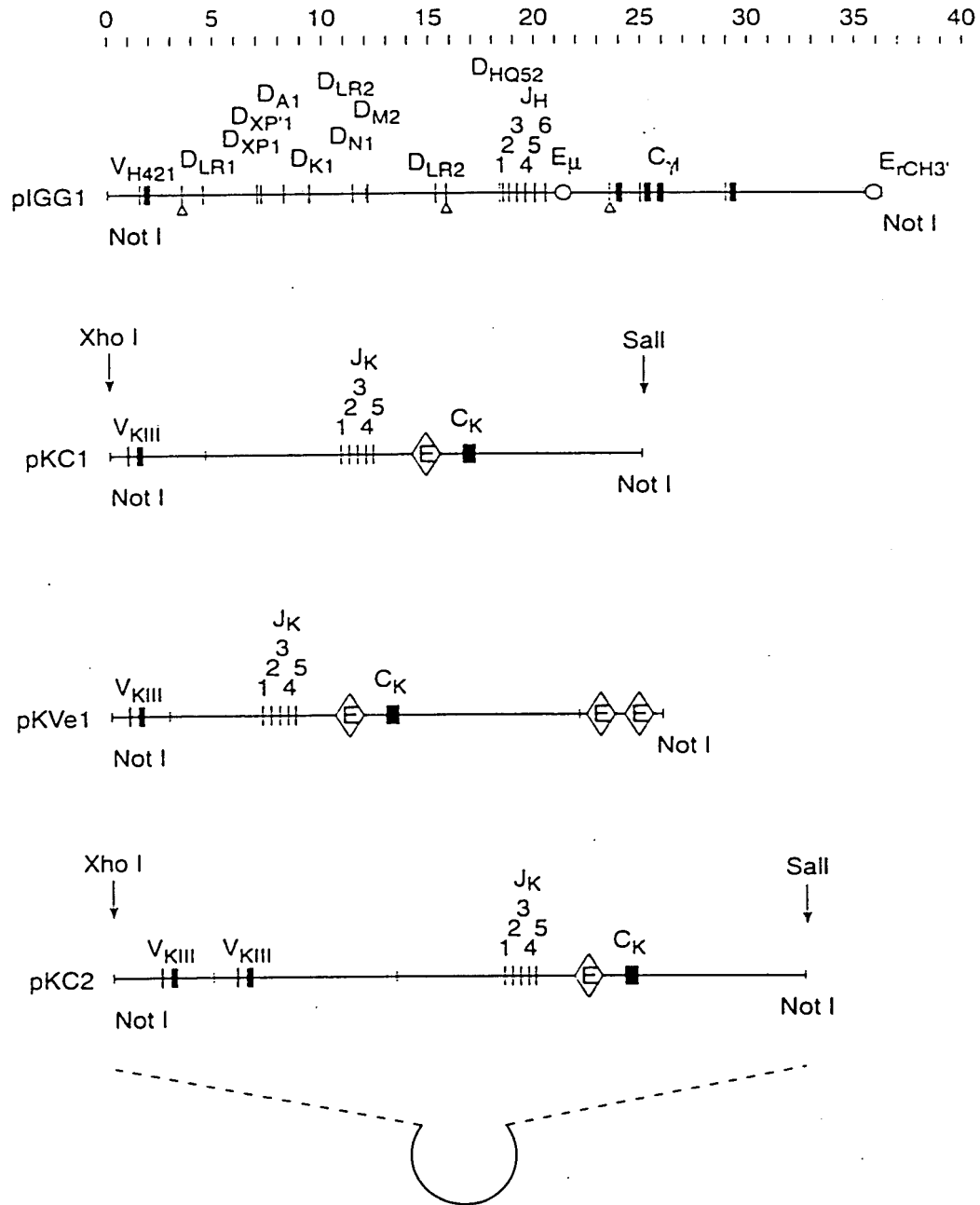


FIG. 32

008211 5964260

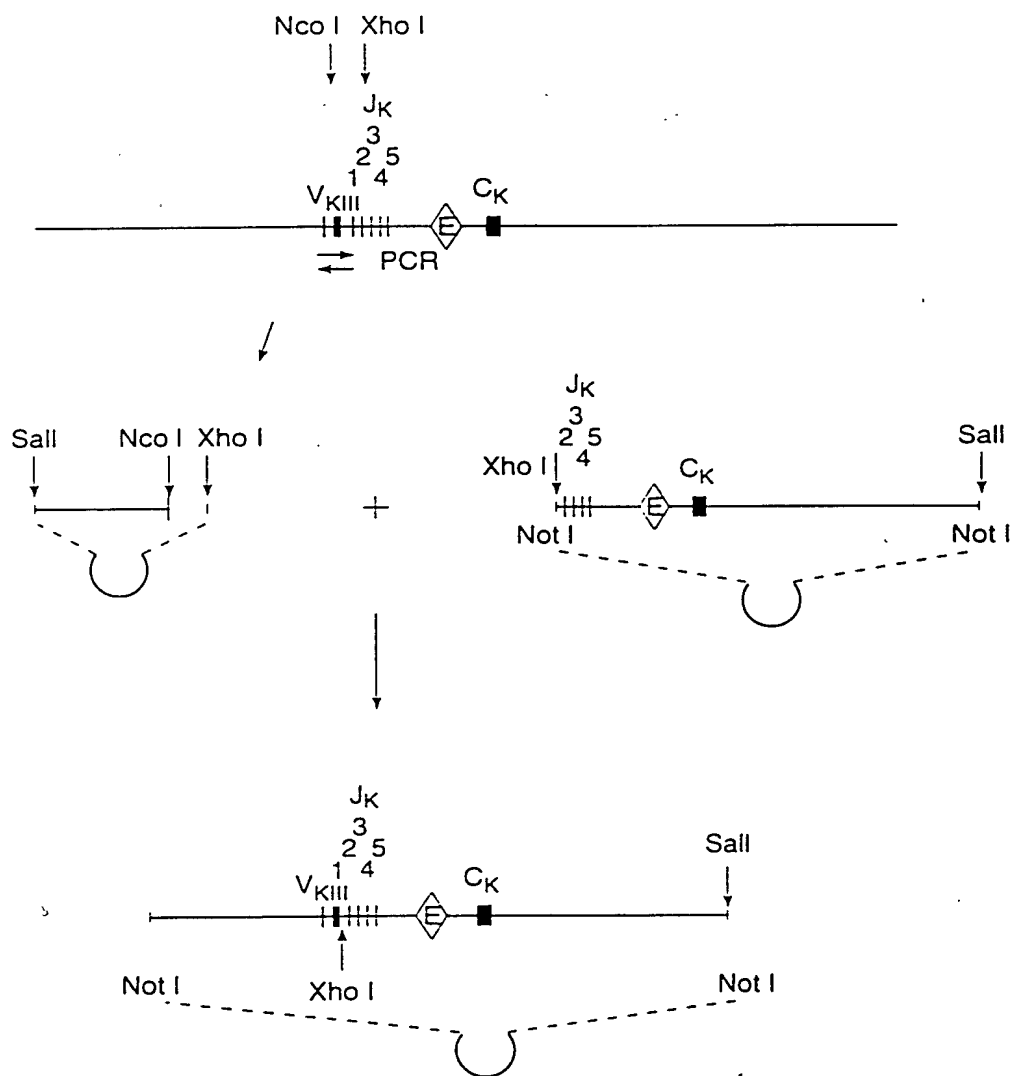


FIG. 33

008271 5964260

36/89

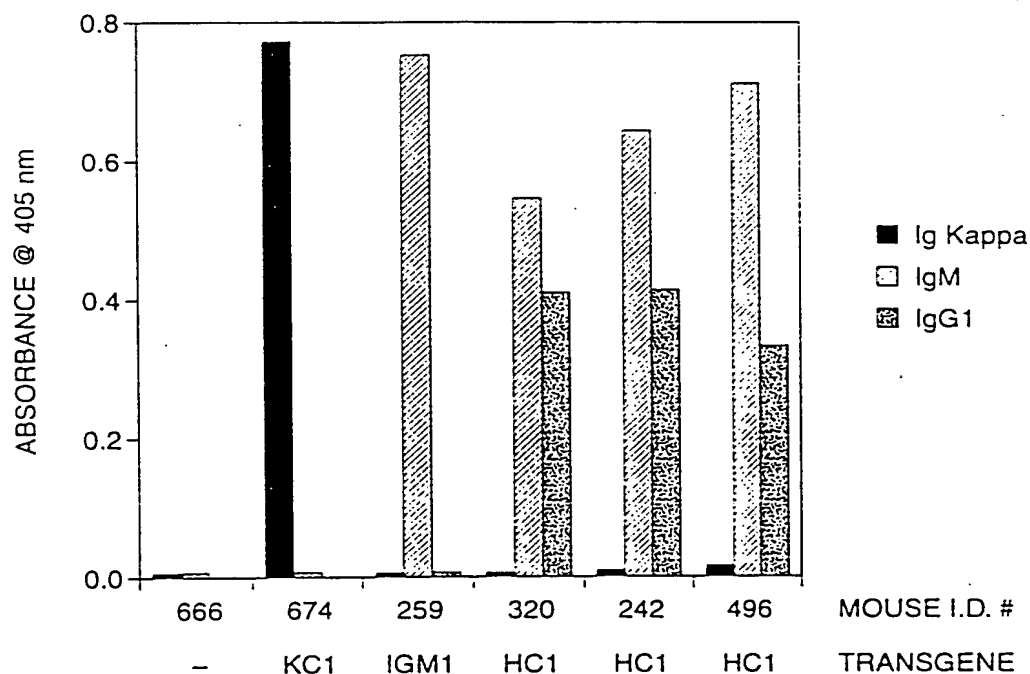


FIG. 34

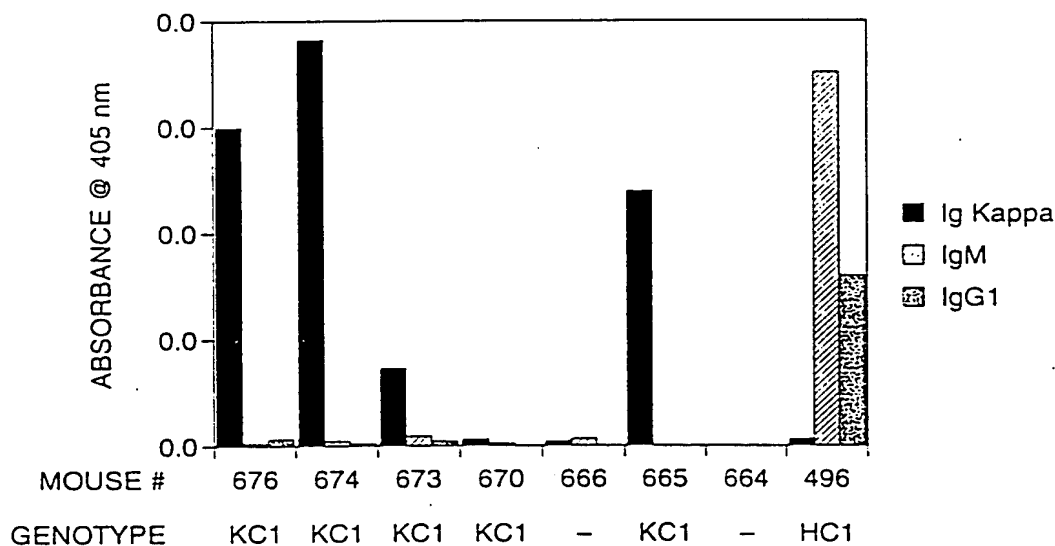


FIG. 35

008211" 59642260

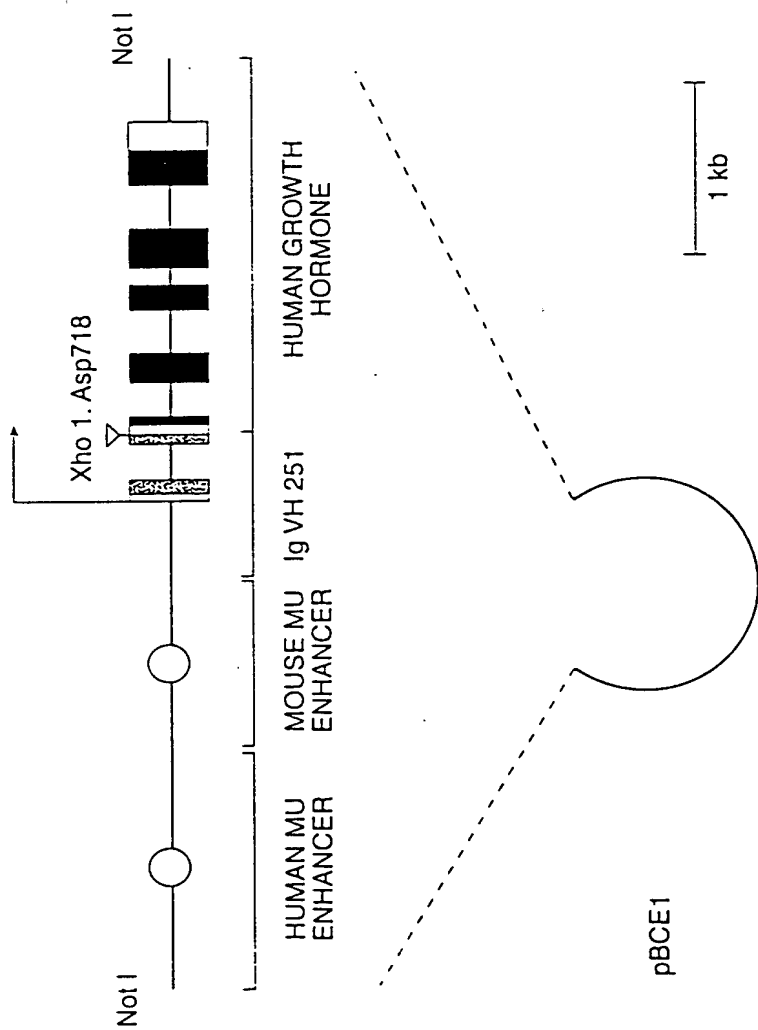


FIG. 36

38/89

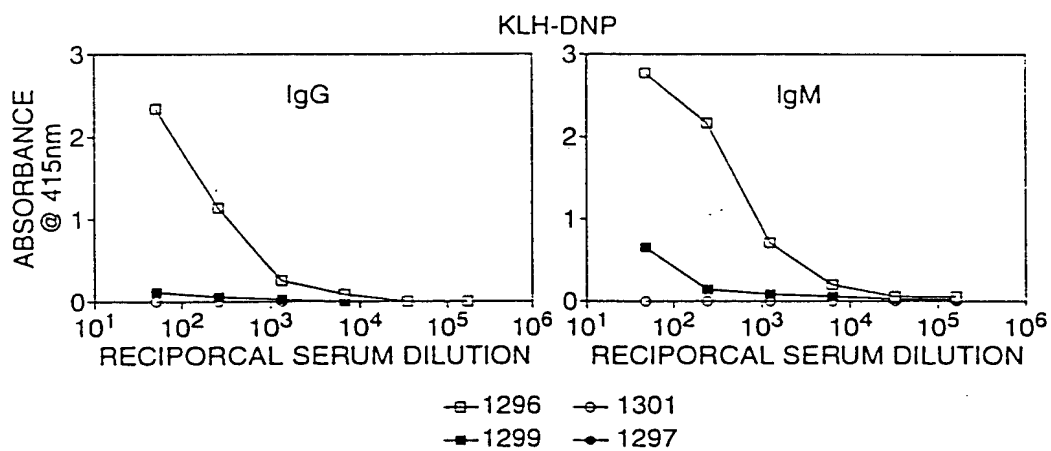


FIG. 37A

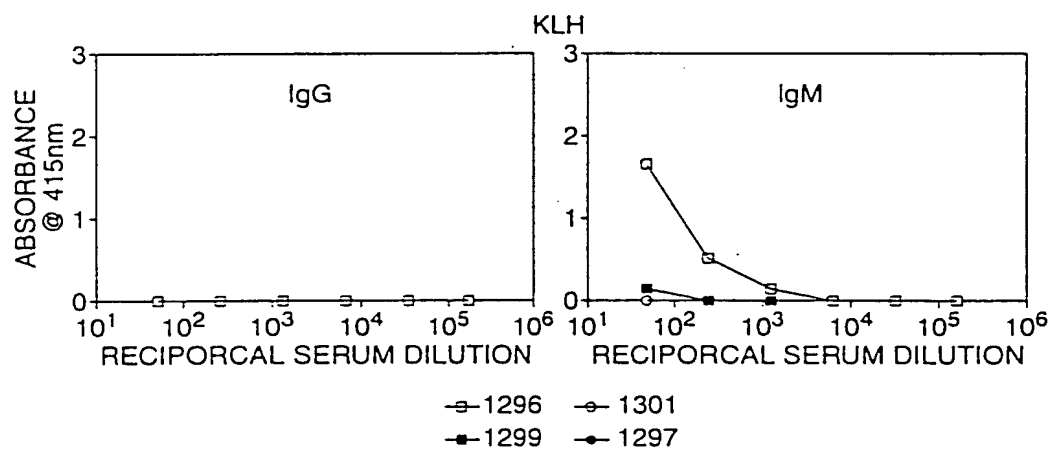


FIG. 37B

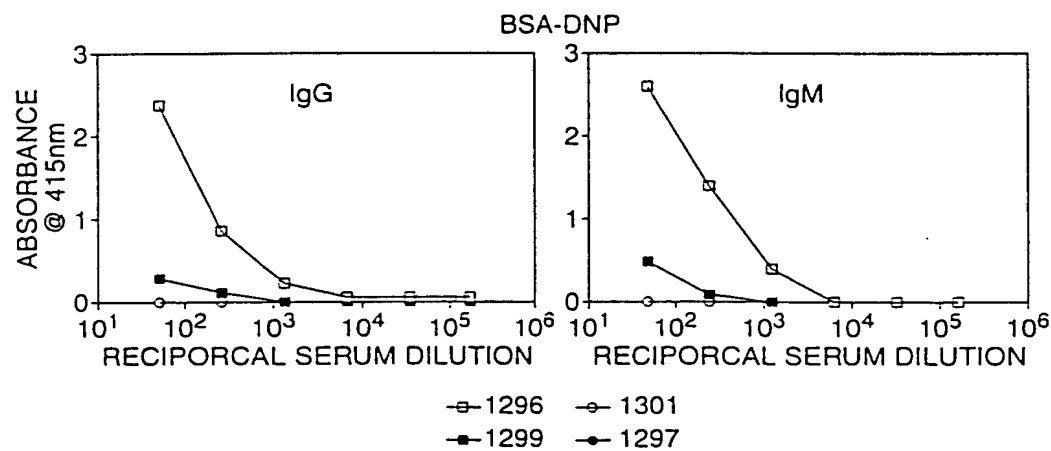


FIG. 37C

000211" 59642260

39/89

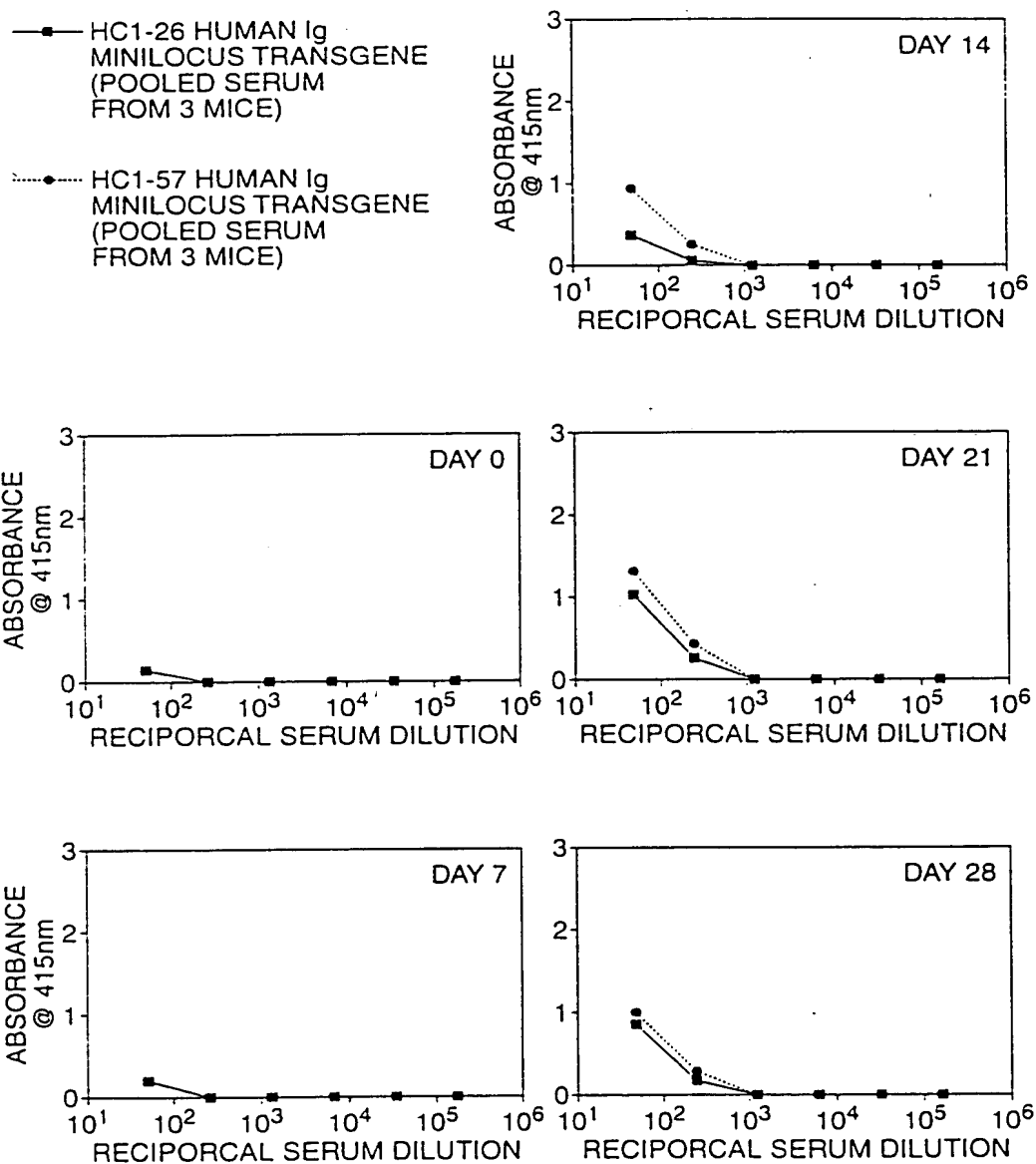


FIG. 38

008211" 59542260

40/89

—■— HC1-26 HUMAN Ig
MINILOCUS TRANSGENE
(POOLED SERUM
FROM 3 MICE)

—●— HC1-57 HUMAN Ig
MINILOCUS TRANSGENE
(POOLED SERUM
FROM 3 MICE)

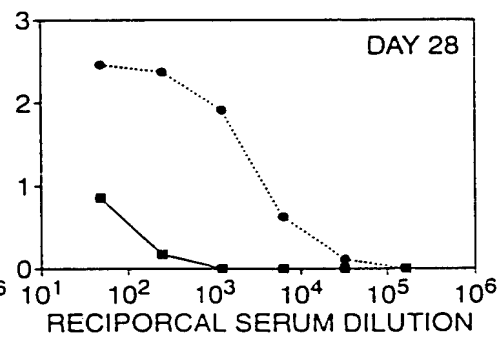
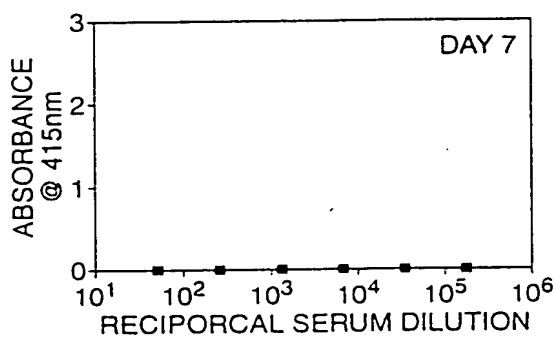
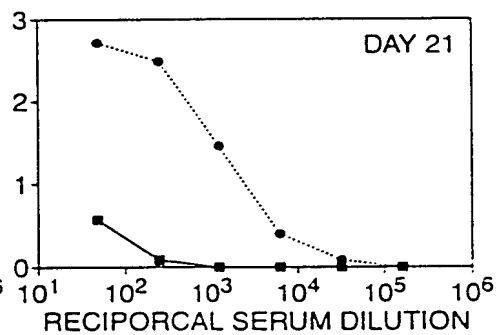
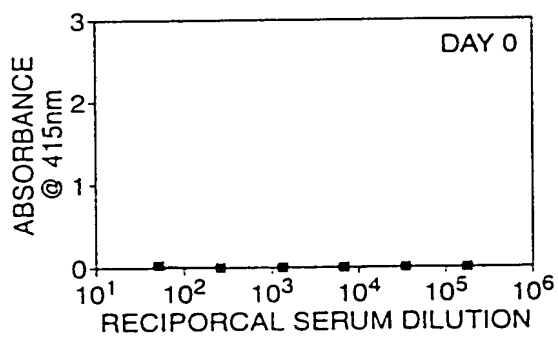
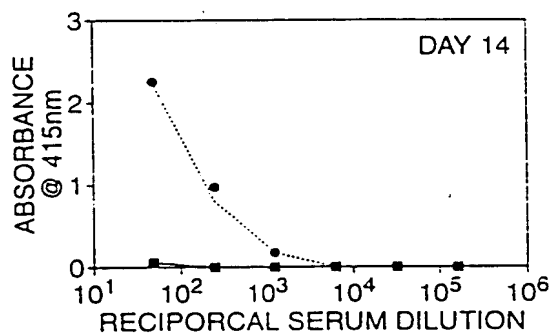


FIG. 39

00221-5954260

41/89

CDR II

FIG. 40

TTTTCTGGCC TGACAACCAG GGTGGCGCAG GATGCTCAGT GCAGAGAGGA 50
 AGAAGCAGGT GGTCTCTGCA GCTGGAAGCT CAGCTCCCAC CCAGCTGCTT 100
 TGCATGTCCC TCCCAGCTGC CCTACCTTCC AGAGCCATA TCAATGCCTG 150
 TGTCAGAGCC CTGGGGAGGA ACTGCTCAGT TAGGACCCAG AGGGAACCAT 200
 GGAAGCCCCA GCTCAGCTTC TCTTCCTCCT GCTACTCTGG CTCCCAGgtg 250
 tGluAlaPro AlaGlnLeuL euPheLeuLe uLeuLeuTrp LeuPro
 agggggaacc atgaggtggt tttgcacatt agtgaaaact cttgccacct 300
 ctgctcagca agaaatataa ttaaaattca aagtatatca acaatttttg 350
 ctctactcaa agacagttgg tttgatcttg attacatgag tgcattttctg 400
 ttttattttcc aatttcagAT ACCACCGGAG AAATTGTGTT GACACAGTCT 450
 Asp ThrThrGlyG luIleValLe uThrGlnSer
 CCAGCCACCC TGTCTTTGTC TCCAGGGGAA AGAGCCACCC TCTCCTGCAG 500
 ProAlaThrL euSerLeuSe rProGlyGlu ArgAlaThrL euSerCysAr
 GGCCAGTCAG AGTGTTAGCA GCTACTTAGC CTGGTACCAA CAGAAACCTG 550
 gAlaSerGln SerValSerS erTyrLeuAl aTrpTyrGln GlnLysProG
 GCCAGGCTCC CAGGCTCCTC ATCTATGATG CATCCAACAG GGCCACTGGC 600
 lyGlnAlaPr oArgLeuLeu IleTyrAspA laSerAsnAr gAlaThrGly
 ATCCCAGCCA GGTTCAAGTG CAGTGGGTCT GGGACAGACT TCACTCTCAC 650
 IleProAlaA rgPheSerGl ySerGlySer GlyThrAspP heThrLeuTh
 CATCAGCAGC CTAGAGCCTG AAGATTTTGC AGTTTATTAC TGTCAGCAGC 700
 rIleSerSer LeuGluProG luAspPheAl aValTyrTyr CysGlnGlnA
 GTAGCAACTG GCCTCCCACA GTGATTCCAC ATGAAACAAA AACCCCAACA 750
 rgSerAsnTr pPro
 AGACCATCAG TGTTTACTAG ATTATTATAC CAGCTGCTTC CTTTACAGAC 800
 AGCTAGTGGG GT 812

FIG. 41

43/89

AGGGCGGCGC AGATGCTCAG TGCAGAGAGA AGAAACAGGT GGTCTCTGCA 50
 GCTGGAAGCT CAGCTCCCAC CCCAGCTGCT TTGCATGTCC CTCCCAGCTG 100
 CCCTACCTTC CAGAGCCCAT ATCAATGCCT GGGTCAGAGC TCTGGGGAGG 150
 AACTGCTCAG TTAGGACCCA GACGGAACCA TGAAGCCCC AGCGCAGCTT 200
 CTCTTCCTCC TGCTACTCTG GCTCACAGgt gaggggaata tgaggtgtct 250
 LeuPheLeuL euLeuLeuTr pLeuThr
 ttgcacatca gtgaaaactc ctgccacctc tgctcagcaa gaaatataat 300
 taaaattcaa aatagatcaa caattttggc tctactcaaa gacagtgggt 350
 ttgattttga ttacatgagt gcattttctgt tttatttcca atttcagATA 400
 AspT
 CCACCGGAGA AATTGTGTTG ACACAGTCTC CAGCCACCCT GTCTTTGTCT 450
 hrThrGlyGl uIleValLeu ThrGlnSerP roAlaThrLe uSerLeuSer
 CCAGGGGAAA GAGCCACCCT CTCCTGCAGG GCCAGTCAGG GTGTTAGCAG 500
 ProGlyGluA rgAlaThrLe uSerCysArg AlaSerGlnG lyValSerSe
 CTACTTAGCC TGGTACCAGC AGAAACCTGG CCAGGCTCCC AGGCTCCTCA 550
 rTyrLeuAla TrpTyrGlnG lnLysProGl yGlnAlaPro ArgLeuLeuI
 TCTATGATGC ATCCAACAGG GCCACTGGCA TCCCAGCCAG GTTCAGTGGC 600
 leTyrAspAl aSerAsnArg AlaThrGlyI leProAlaAr gPheSerGly
 AGTGGGCCTG GGACAGACTT CACTCTCACC ATCAGCAGCC TAGAGCCTGA 650
 SerGlyProG lyThrAspPh eThrLeuThr IleSerSerL euGluProGl
 AGATTTTGCA GTTTATTACT GTCAGCAGCG TAGCAACTGG CATCCCACAG 700
 uAspPheAla ValTyrTyrC ysGlnGlnAr gSerAsnTrp His
TGATTCCACA TGAAACAAAA ACCCCAACAA GACCATCAGT GTTTACTAGA 750
 TTATTATACC AGCTGCTTCC TTTACAGACA GCTAGTGGGG TGGCCACTCA 800
 GTGTTAGCAT CTCAGCTCTA TTTGGCCATT TTGGAGTTCA AGTTGTCAAG 850
 TCCAAAATTA CTTATGTTAG TCCATTGCAT CATACCATTT CAGTGTGGCT 900

FIG. 42

09724965-112800

44/89

CCGCCCCAGC TGCTTTGCAT GTCCCTCCCA GCCGCCCTGC AGTCCAGAGC 50

CCATATCAAT GCCTGGGTCA GAGCTCTGGA GAAGAGCTGC TCAGTTAGGA 100

ACCCCAGAGG GAACCATGGA AACCCCAGCG CAGCTTCTCT TCCTCCTGCT 150
MetGl uThrProAla GlnLeuLeuP heLeuLeuLe

ACTCTGGCTC CCAGgtgagg ggaacatggg atggttttgc atgtcagtga 200
uLeuTrpLeu Pro

aaaccctctc aagtcctggt acctggcaac tctgctcagt caatacaata 250

attaaagctc aatataaagc aataattctg gctcttctgg gaagacaatg 300

ggtttgattht agattacatg ggtgacttht ctgtttttatt tccaatctca 350

gATACCACCG GAGAAATTGT GTTGACGCAG TCTCCAGGCA CCCTGTCTTT 400
AspThrThrG lyGluIleVa lLeuThrGln SerProGlyT hrLeuSerLe

GTCTCCAGGG GAAAGAGCCA CCCTCTCCTG CAGGGCCAGT CAGAGTGTTA 450
uSerProGly GluArgAlaT hrLeuSerCy sArgAlaSer GlnSerValS

GCAGCAGCTA CTTAGCCTGG TACCAGCAGA AACCTGGCCA GGCTCCCAGG 500
erSerSerTy rLeuAlaTrp TyrGlnGlnL ysProGlyGl nAlaProArg

CTCCTCATCT ATGGTGCATC CAGCAGGGCC ACTGGCATCC CAGACAGGTT 550
LeuLeuIleT yrGlyAlaSe rSerArgAla ThrGlyIleP roAspArgPh

CAGTGGCAGT GGGTCTGGGA CAGACTTCAC TCTCACCATC AGCAGACTGG 600
eSerGlySer GlySerGlyT hrAspPheTh rLeuThrIle SerArgLeuG

AGCCTGAAGA TTTTGCAGTG TATTACTGTC AGCAGTATGG TAGCTCACCT 650
luProGluAs pPheAlaVal TyrTyrCysG lnGlnTyrGl ySerSerPro

CCCACAGTGA TTCAGCTTGA AACAAAAACG TCTGCAAGAC CTTCATTGTT 700

TACTAGATTA TACCAGCTGC TTCCTTTACA GATAGCTGCT GCAATGACAA 750

CTCAATTTAG CATCTCTCTC TGCTTGGGCA TTTTGGGGAT CTAAAAAAG 800

TAATCCCTTG ATATATTTTT GACTCTGATT CCTGCATTTT TCCTCAGACC 850

AAGATGGACA GCCAGGTTTA AGCACAGTTT CACAGTAATG GCCACTGGAT 900

FIG. 43

00221" 595h2450

45/89

AAACACATTC	TCTGCAGACA	AATTTGAGCT	ACCTTGATCT	TACCTGGACA	50
GGTGGGGACA	CTGAGCTGGT	GCTGAGTTAC	TCAGATGCGC	CAGCTCTGCA	100
GCTGTGCCCCA	GCCTGCCCCA	TCCCCTGCTC	ATTTGCATGT	TCCCAGAGCA	150
CAACCTCCTG	CCCTGAAGCC	<u>TTATTAAT</u> AG	GCTGGTCAGA	CTTTGTGCAG	200
GAATCAGACC	CAGTCAGGAC	ACAGCATGGA	CATGAGGGTC	CTCGCTCAGC	250
		MetAs	pMetArgVal	LeuAlaGlnL	
TCCTGGGGCT	CCTGCTGCTC	TGTTTCCCAG	gtaaggatgg	agaacactag	300
euLeuGlyLe	uLeuLeuLeu	CysPhePro			
cagtttactc	agcccagggt	gctcagtact	gctttactat	tcagggaaat	350
tctcttaca	catgattaat	tgtgtggaca	tttgttttta	tgttttccaat	400
ctcagGTGCC	AGATGTGACA	TCCAGATGAC	CCAGTCTCCA	TCCTCACTGT	450
GlyAla	ArgCysAspI	leGlnMetTh	rGlnSerPro	SerSerLeuS	
CTGCATCTGT	AGGAGACAGA	GTCACCATCA	CTTGTCGGGC	GAGTCAGGGT	500
erAlaSerVa	lGlyAspArg	ValThrIleT	hrCysArgAl	aSerGlnGly	
ATTAGCAGCT	GGTTAGCCTG	GTATCAGCAG	AAACCAGAGA	AAGCCCCCTAA	550
IleSerSerT	rpLeuAlaTr	pTyrGlnGln	LysProGluL	ysAlaProLy	
GTCCCTGATC	TATGCTGCAT	CCAGTTTGCA	AAGTGGGGTC	CCATCAAGGT	600
sSerLeuIle	TyrAlaAlaS	erSerLeuGl	nSerGlyVal	ProSerArgP	
TCAGCGGCAG	TGGATCTGGG	ACAGATTTC	CTCTCACCAT	CAGCAGCCTG	650
heSerGlySe	rGlySerGly	ThrAspPheT	hrLeuThrIl	eSerSerLeu	
CAGCCTGAAG	ATTTTGCAAC	TTATTACTGC	CAACAGTATA	ATAGTTACCC	700
GlnProGluA	spPheAlaTh	rTyrTyrCys	GlnGlnTyrA	snSerTyrPr	
ACC <u>CACAGTG</u>	TTACACACCC	AA <u>ACATAAAC</u>	CCCAGGGAA	GCAGATGTGT	750
O					
GAGGCTGGGC	TGCCCCAGCT	GCTTCTCCTG	ATGCCTCCAT	CAGCTGAGAG	800
TGTTCTCAG	ATGCAGCCAC	ACTCTGATGG	TGTTGGTAGA	TGGGGAC	847

FIG. 44

09724965-112800

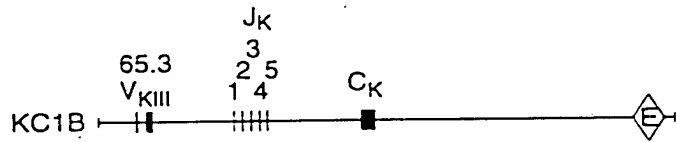
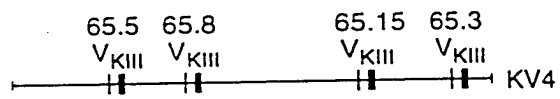


FIG. 45

008211-5964260

47/89

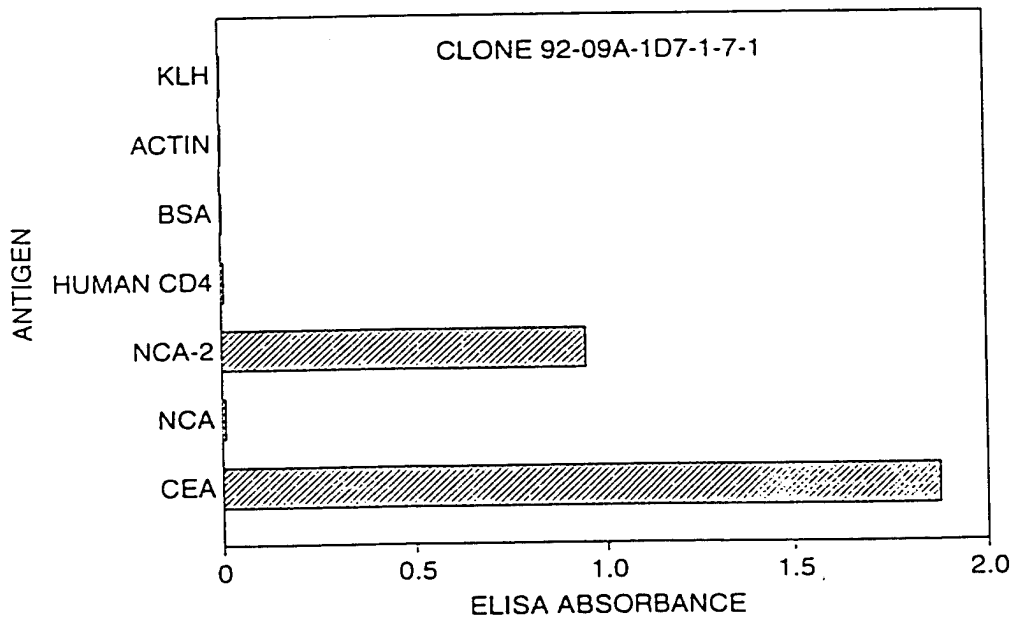
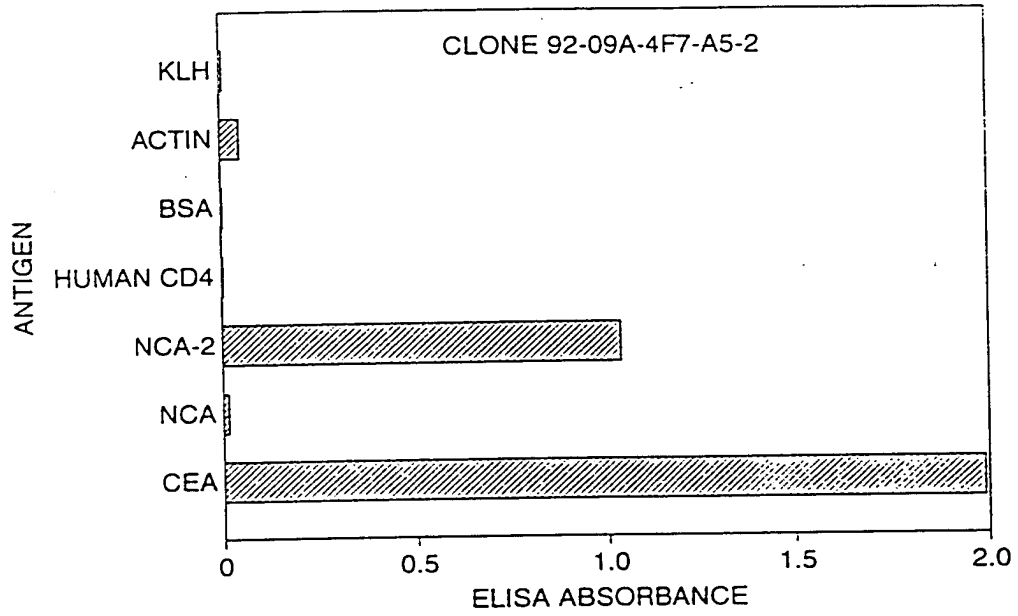


FIG. 46

00821 5964260

	WH251	HUMAN n d n		J	HOUSE Cy
5 DXP'1 J6 G1	GCCTGGACACCGCCATGTATTACTGTGCAGA	cattTATGGTTCGGGGAGTTAcg	CGGTgTGAAGCTCTGGGGCCAAAGGGACACGGTCAACGTCCTCTCAG	CCAAACGACACCCCCCATCTGTCTATCCACT	
7 DHQ52 J3 G1	GCCTGGACACCGCCATGTATTACTGTGCAGA	cACTGGGcattggat	GCCTcTTGAgtCTGGGGCCAAAGGGACAATGcTCAACGTCCTTCAG	CCAAACGACACCCCCCATCTGTCTATCCACT	
2 DHQ52 J3 G2b	GCCTGGACACCGCCATGTATTACTGTGCAGA	ACTGGGcAtgat	GCCTTTGATATCTGGGGCCAAAGGGACAATGGTCACCGTCCTTCAG	CCAAACGACACCCCCCATCTGTCTATCCACT	
3 D7 J3 G2b	GaCTGGACACCGCCATGTATTACTGTGCAGA	caggggagagat	GCCTTTAGATATCTGGGGCCAAAGGGACAATGGTCACCGTCCTTCAG	CCAAACGACACCCCCCATCTGTCTATCCACT	
4 DXP'1 J4 G2b	GCCTGGACACCGCCATGTATTACTGTGCAGA	catagggaCTATatTTCGGGAGTTAttccc	TGACTACTGGGGCCAAAGGGAACCTTGGTCACCGTCCTCTCAG	CCAAACGACACCCCCCATCTGTCTATCCACT	
10 DHQ52 J3 G2b	GCCTGGACACCGCCATGTATTACTGTGCAGA	ACTGGGcAtgat	GCCTTTGATATCTGGGGCCAAAGGGACAATGGTCACCGTCCTTCAG	CCAAACGACACCCCCCATCTGTCTATCCACT	
1 D? J3 G3	GCCTGGACACCGCCATGTATTACTGTGCAGA	catgggtctatg	GATATCTGGGGCCAAAGGGACAATGGTCACCGTCCTTCAG	CTAACACACAGCCCCCATCTGTCTATCCCTT	
6 DHQ52 J4 G3	GCCTGGACACCGCCATGTATTACTGTGCAGA	gaggcaggtcAtCTGGGcAtcg	TTTGACTATcTGGGGCCAGGGGACCTTGGTCACCGTCCTCTCAG	CTAACACACAGCCCCCATCTGTCTATCCCTT	
8 DIR2 J3 G3	GCCTGGACACCGCCATGTATTACTGTGCAGA	agggaCCCCctgat	GCCTTTGATATCTGGGGCCAAAGGGACAATGGTCACCGTCCTTCAG	CTAACACACAGCCCCCATCTGTCTATCCCTT	
9 DIR2r J6 G3	GCCTGGACACCGCCATGTATTACTGTGCAGA	cagGGGcCTT	TACTACTACTAGGTATGAAGCTCTGGGGCCAAAGGGACACGGTCACCGTCCTCTCAG	CTAACACACAGCCCCCATCTGTCTATCCCTT	

FIG. 47

49/89

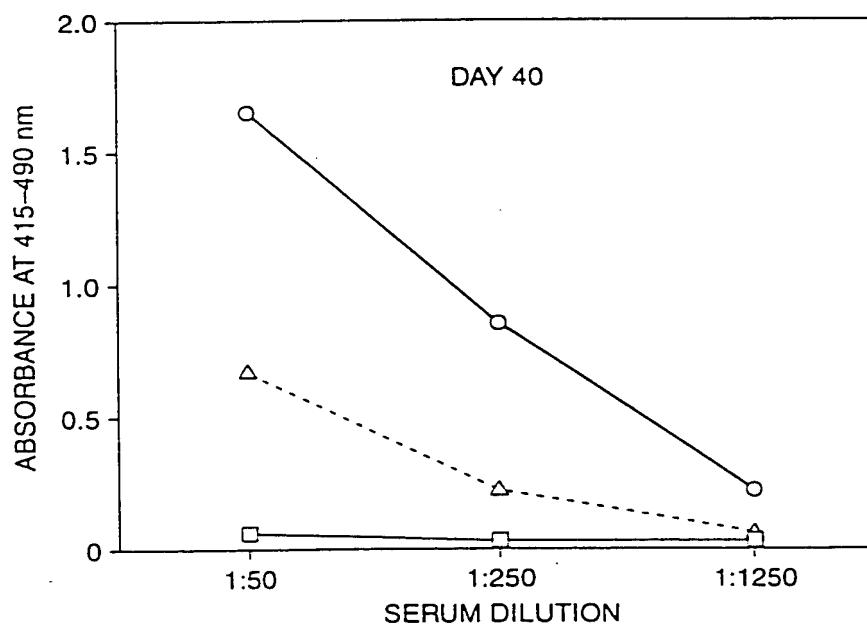
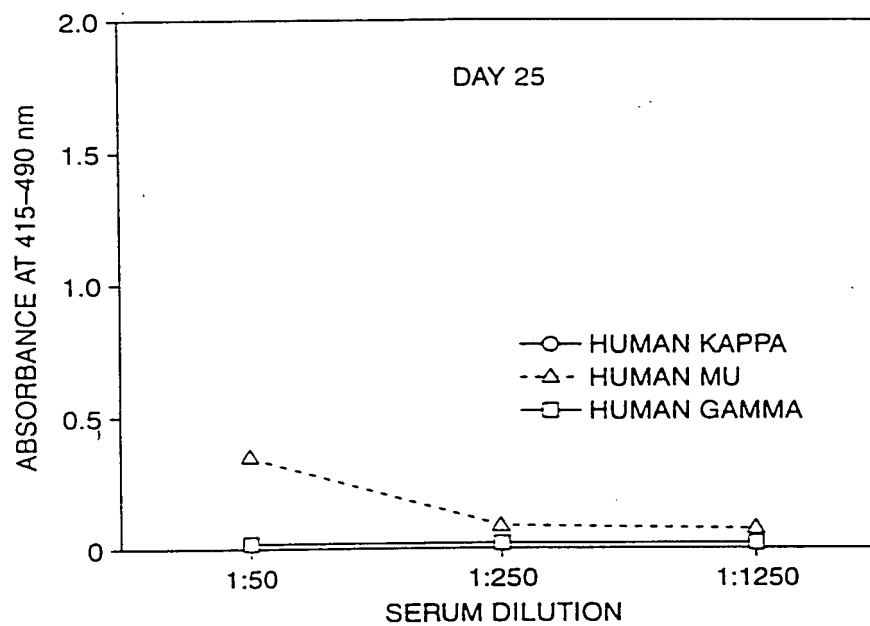


FIG. 48

50/89

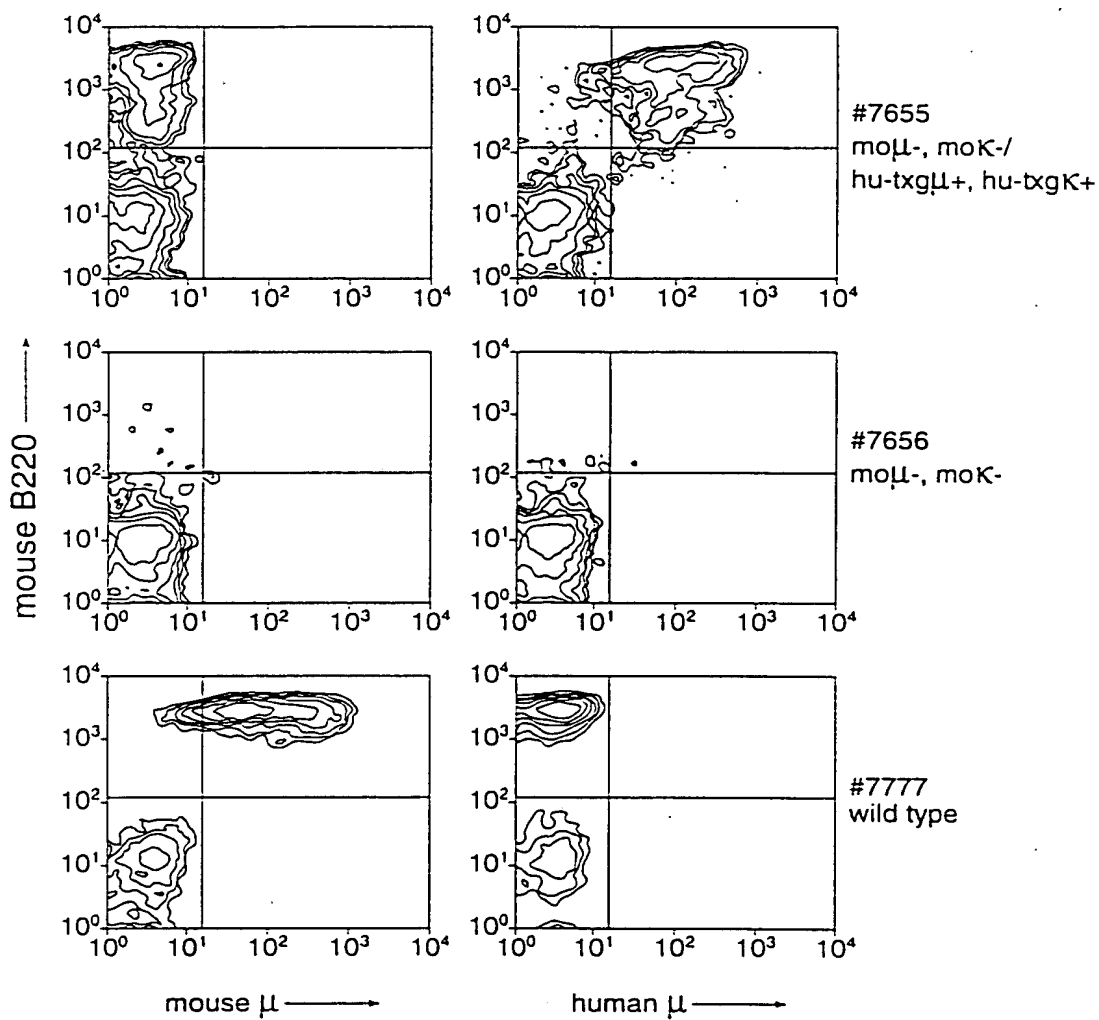


FIG. 49

51/89

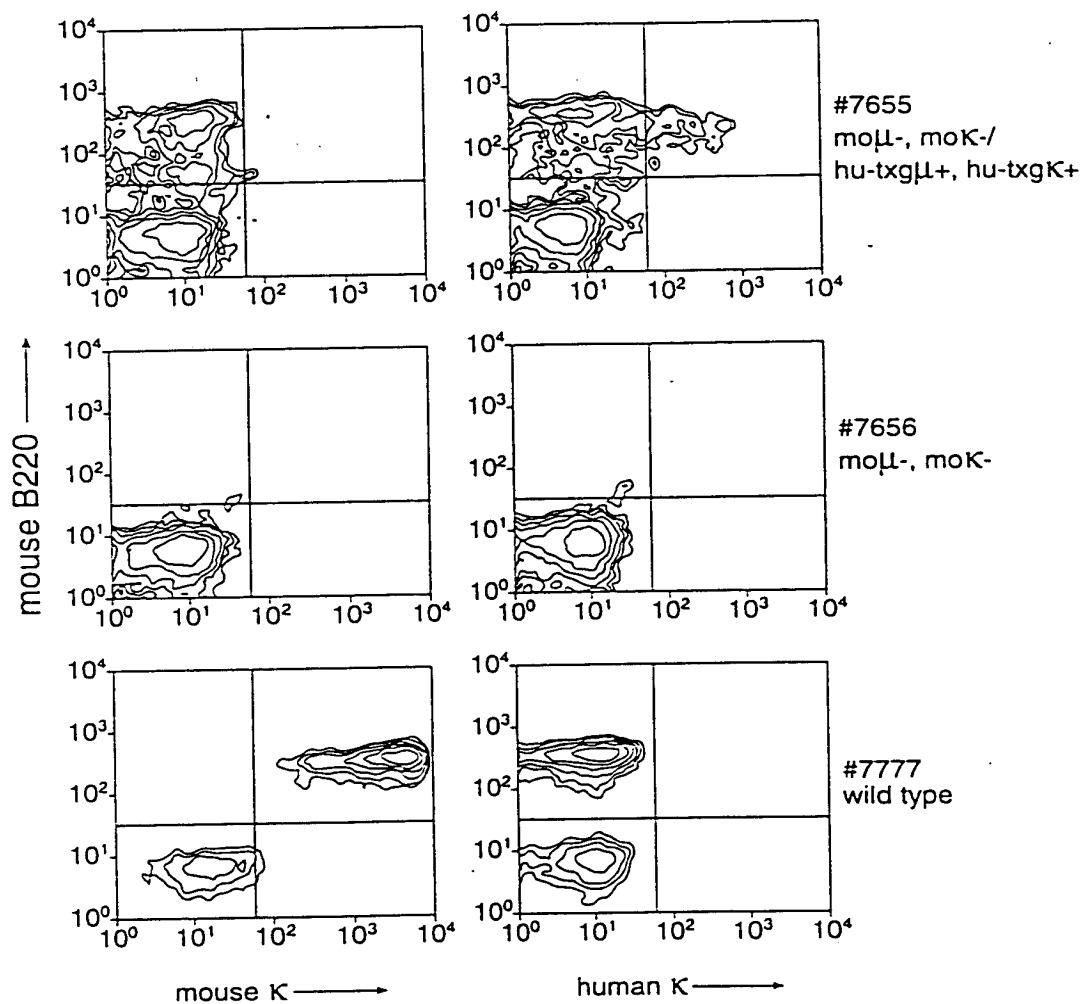


FIG. 50

003211-5964260

52/89

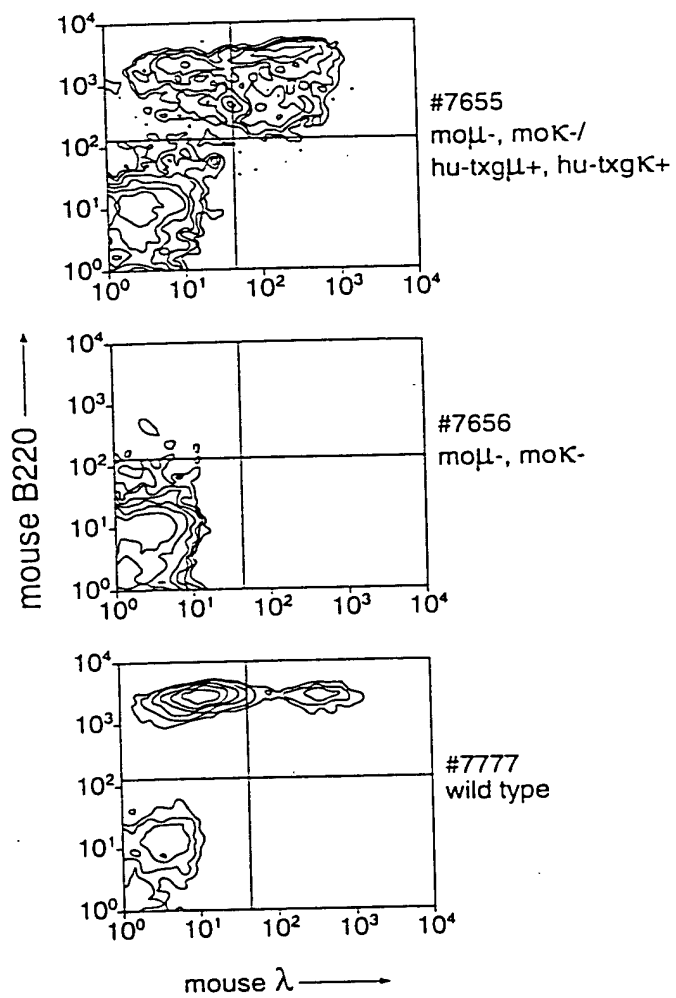


FIG. 51

53/89

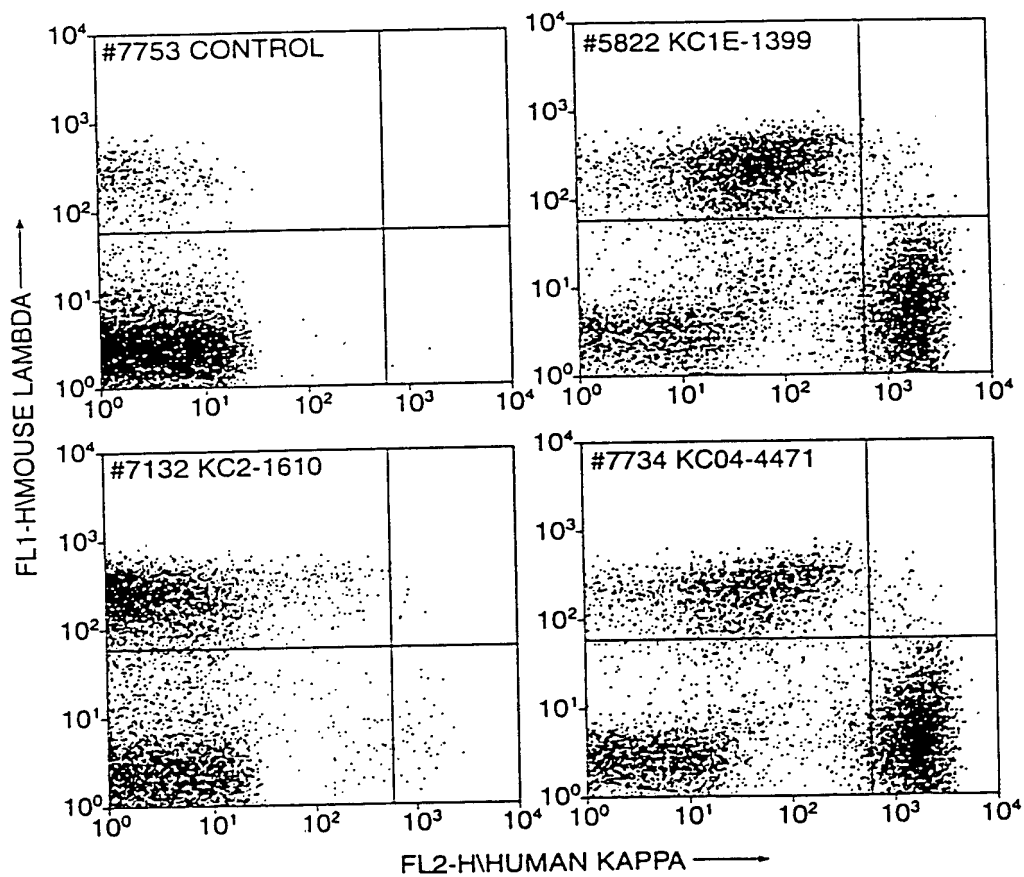


FIG. 52

54/89

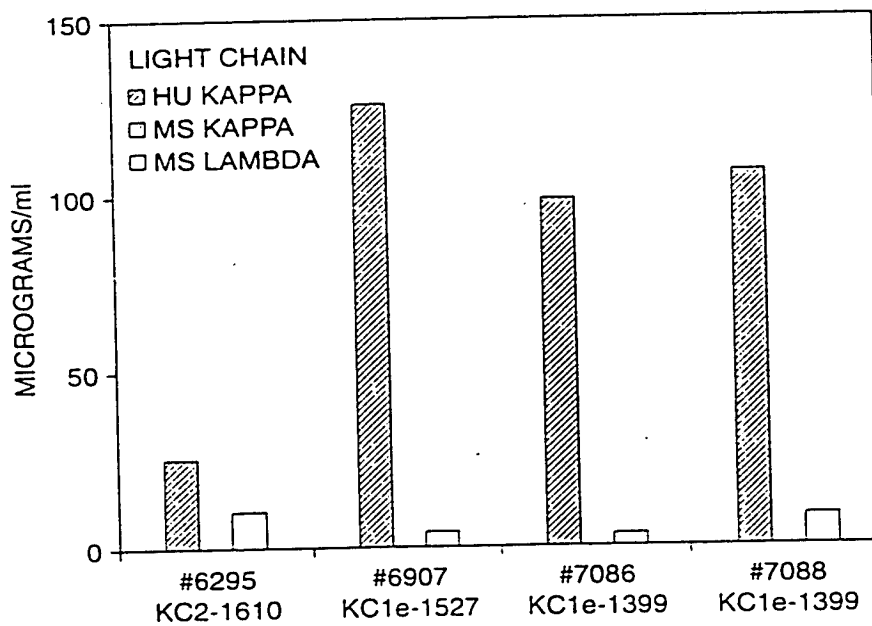
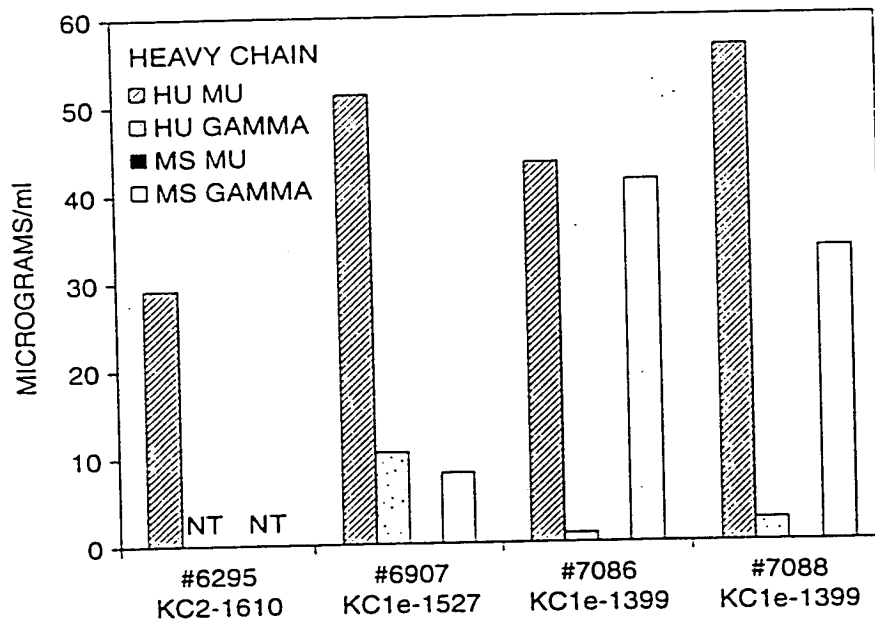


FIG. 53

55/89

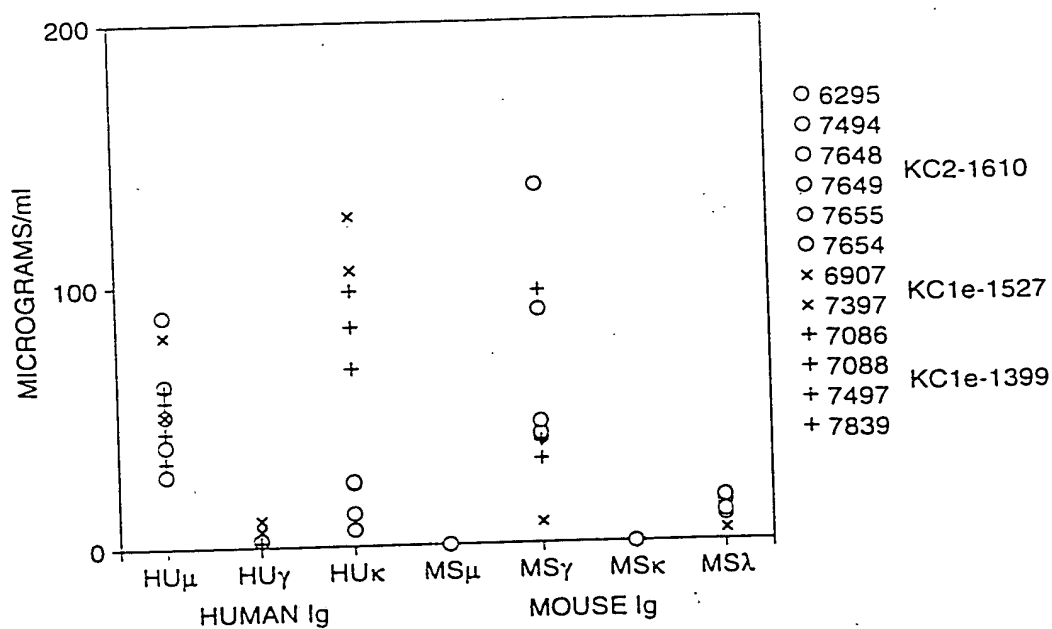


FIG. 54

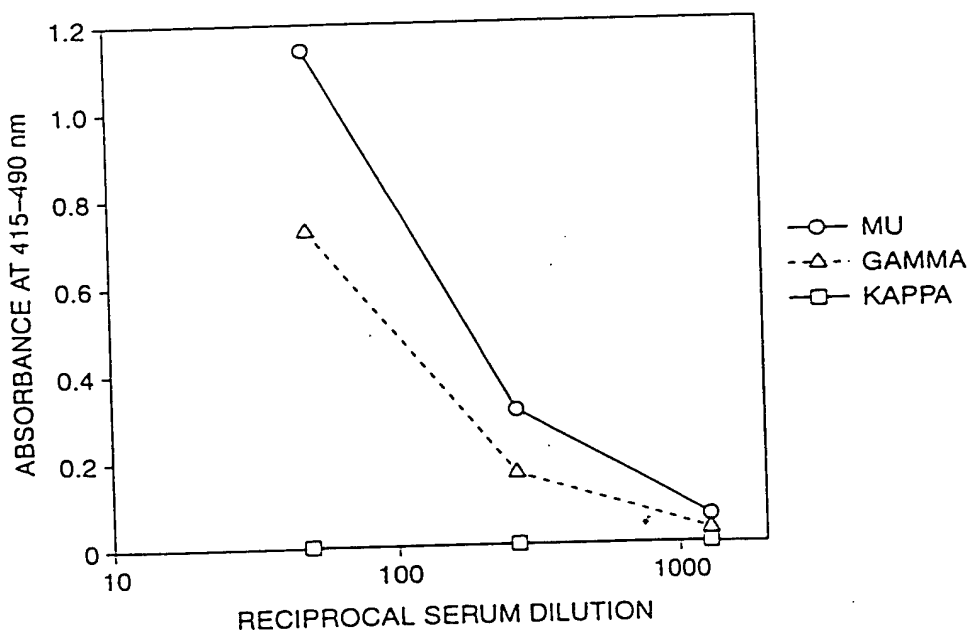


FIG. 55

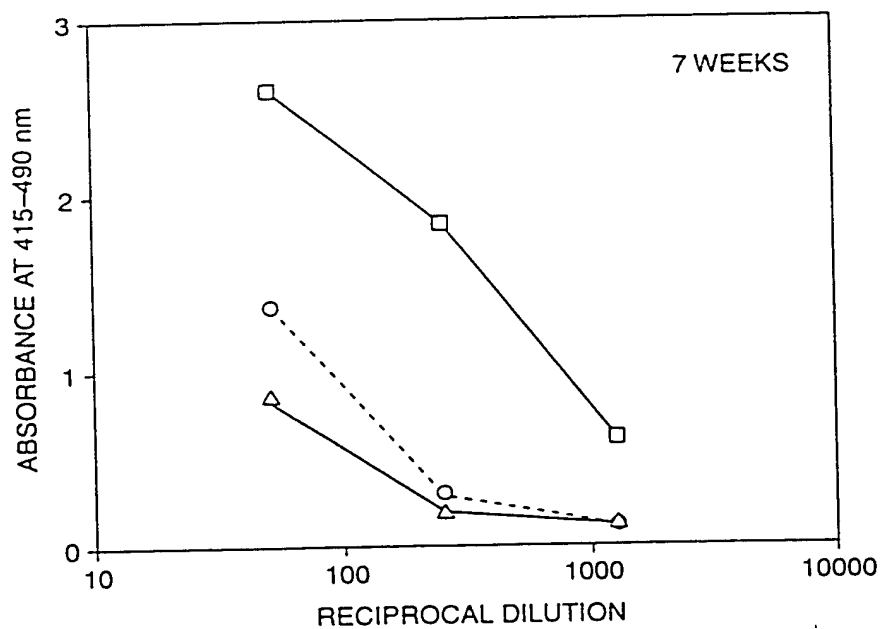
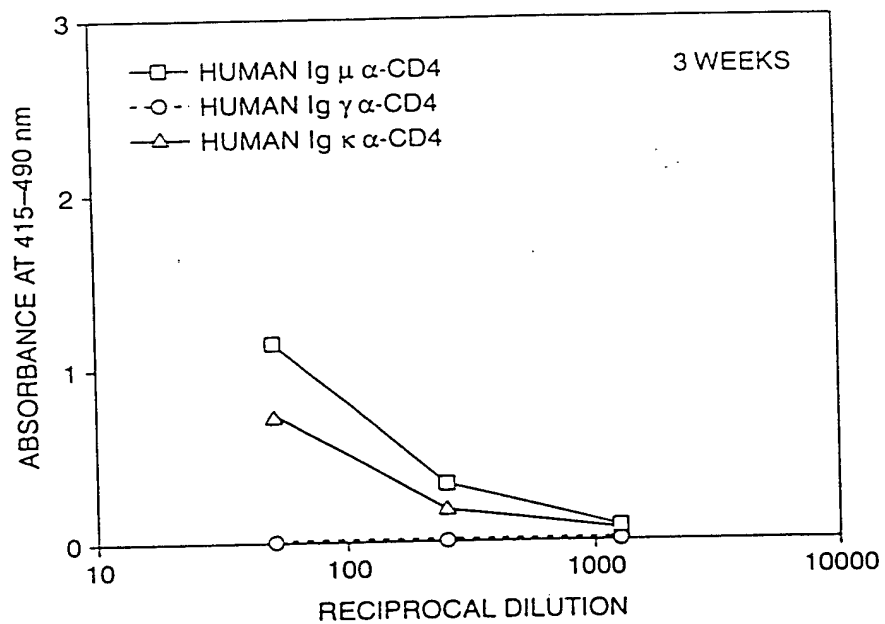
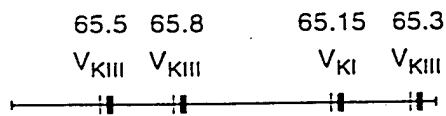
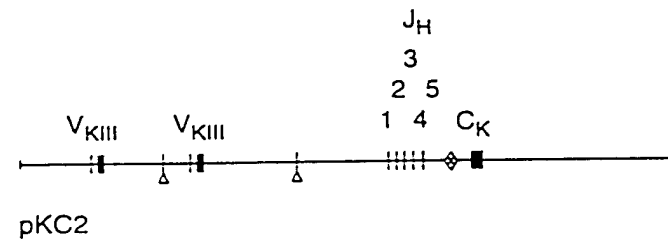
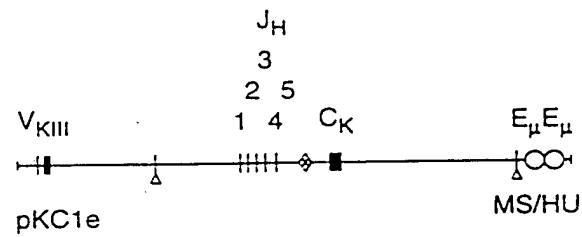
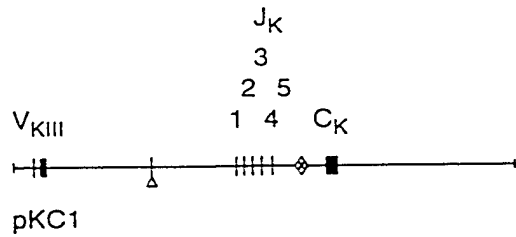


FIG. 56

57/89

0 5 10 15 20 25 30 35 40 45Kb

LIGHT CHAIN MINIOCI



X

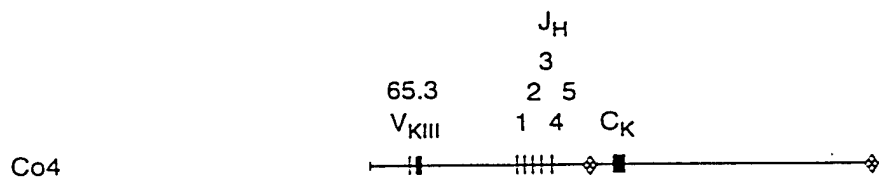


FIG. 57A

008211-5961260

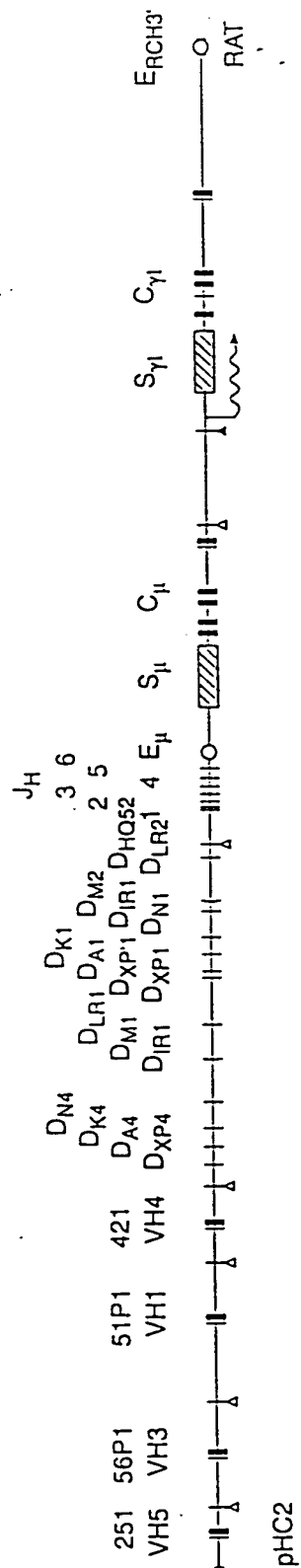
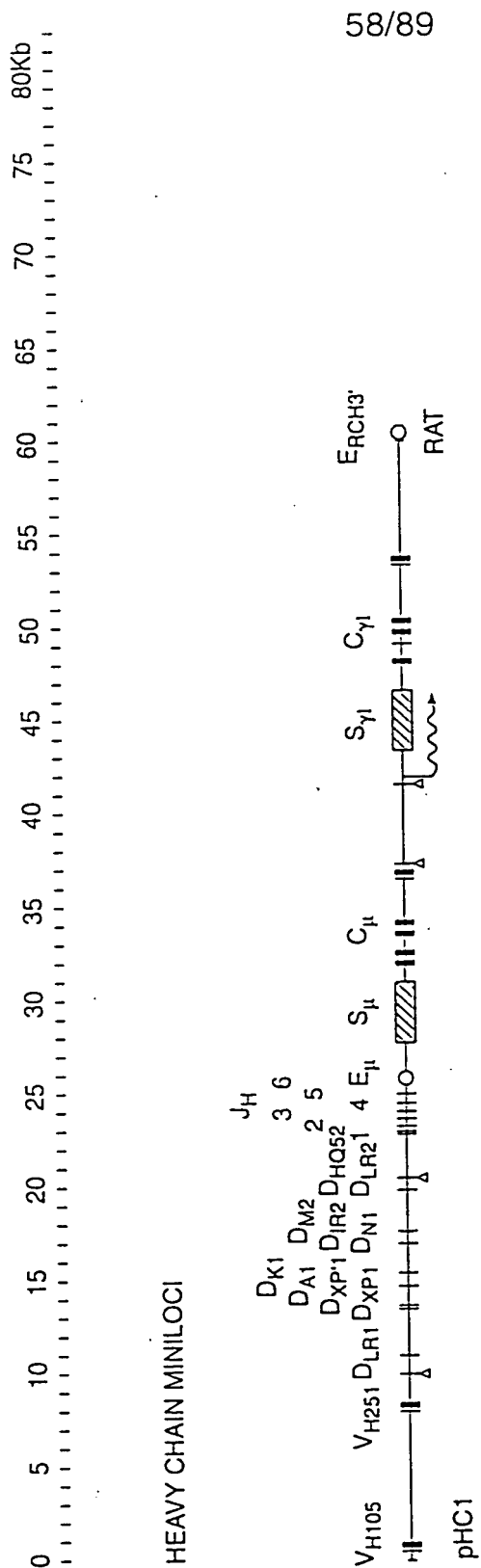


FIG. 57B

59/89

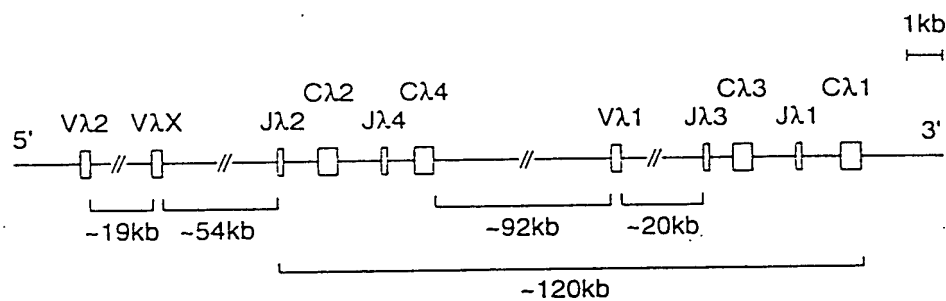
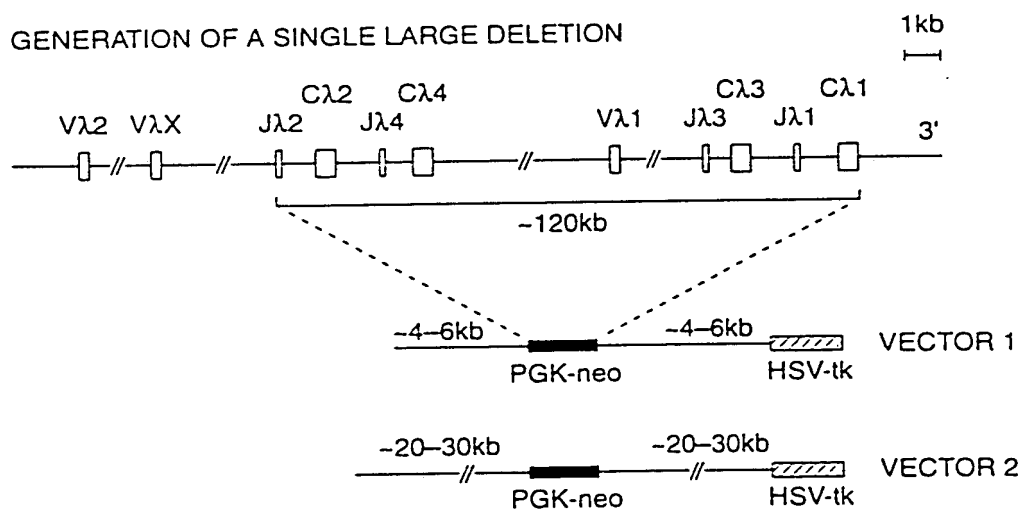


FIG. 58

GENERATION OF A SINGLE LARGE DELETION



GENERATION OF TWO SMALL DELETIONS

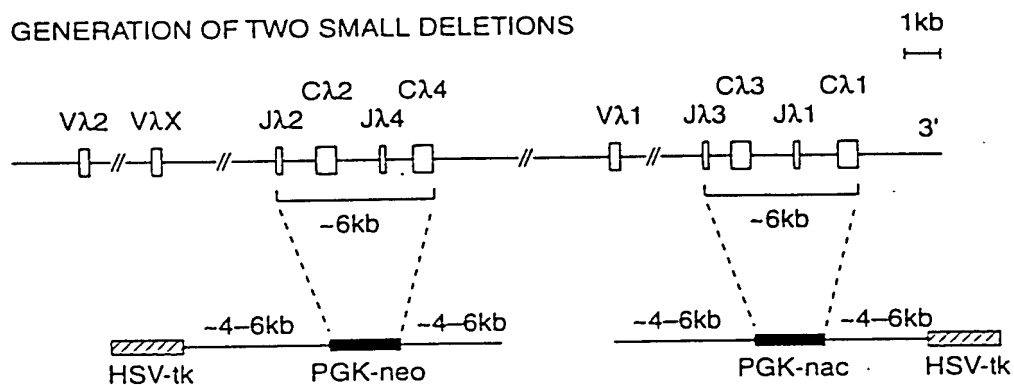
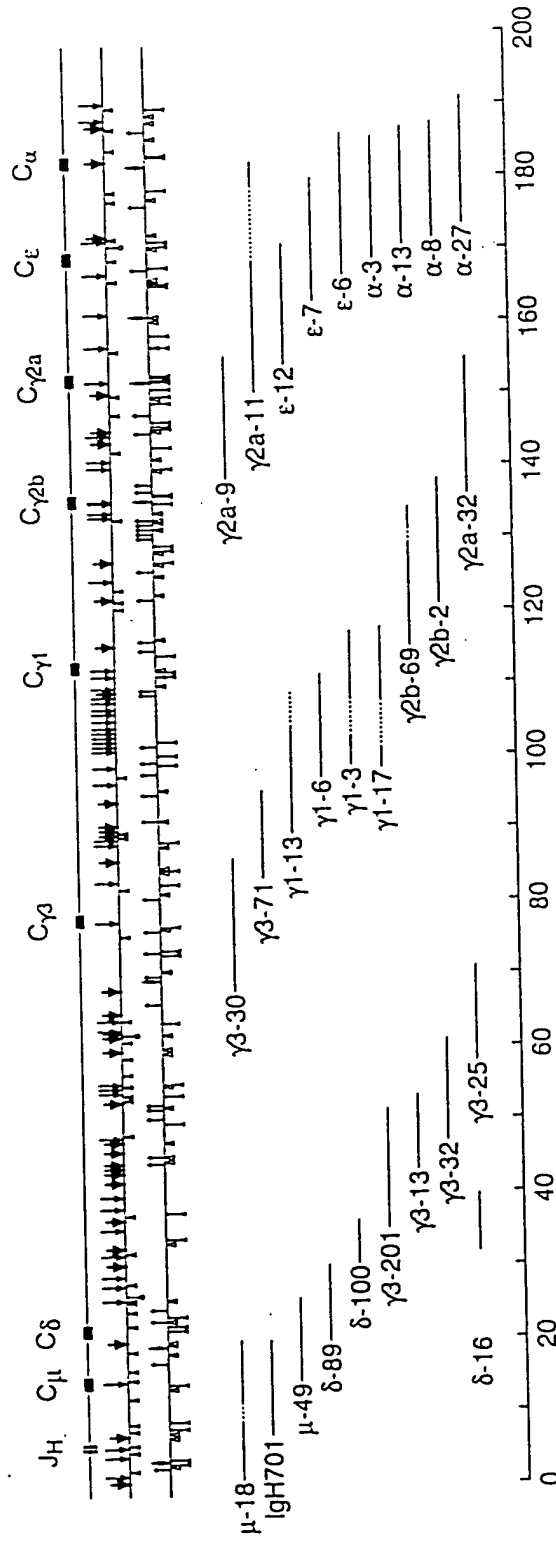


FIG. 59

003211 5964260

60/89



↓ Eco RI | Kpn I
↓ Bam HI | Xho I
↓ Hind III | Xba I
↓ Sal I | Sac I

FIG. 60

CGAGAGGGGCGGGGGGAAGACTACTATCCCAGGCAGGTTTTAGGTTCCAGAGTCTGCGAG
AAATCCCACCATCTACCCACTGACACTCCCACCAGTCCTGTGCAGTGATCCCGTGATAAT
CGGCTGCCTGATTACGATTACTTCCCTTTCGGCACGATGAATGTGACCTGGGGAAAGAG
TGGGAAGGATATAACCACCGTGAACCTTCCACCTGCCCTCGCCTCTGGGGGACGGTACAC
CATGAGCAGCCAGTTAACCCTGCCAGCTGTGAGTGCCGAGAGGAGAGTCCGTGAAATG
TTCCGTGCAACATGACTCTAACCCCGTCCAAGAATTGGATGTGAATTGCTCTGGTAAAGA
ACGTTAGGGGGTCAGCTAGGGGTGGGATAAGTCCTACCTTATCTAGATCCATATATCCCT
CTGATGCACACCCTCACAGGAATCCCTCAGAAACCTCCACTATGGGGATTGGGGGAAGGA
AGCGTAAACAGGTCTAGAAGGAGCTGGAGGCCTCAGAACATCCAGAAACGGGGACAGCAA
AGGAGACAAGGAGAATATACTGATTTGCTAGGACATCTTCTGTTACAGGTCCTACTCCTC
CTCCTCCTATTACTATTCTTCTGCCAGCCCAGCCTGTCACTGCAGCGCCAGCTCTTG
AGGACCTGCTCCTGGGTTGAGATGCCAGCATCACATGTAATGTCCTGAGAAATC
CTGAGGGAGCTGCTTTCACCTGGGAGCCCTCCACTGGGAAGGATGCAGTGCAGAAAGAAAG
CTGCGCAGAAATCCTGCGGCTGCTACAGTGTGTCCAGCGTCCTGCCTGGCTGTGCTGAGC
GCTGGAACAGTGGCGCATCATTCAAGTGACAGTTACCCATCCTGAGTCTGGCACCTTAA
CTGGCACAATTGCCAAAGTCACAGGTGAGCTCAGATGCATACCAGGACATTGTATGACGT
TCCCTGCTCACATGCCTGCTTCTTCTTATAATACAGATGCTCAACTAACTGCTCATGTC
CTTATATCACAGAGGGAAATTGGAGCTATCTGAGGAACTGCCCAGAAAGGGAAGGGCAGAG
GGGTCTTGCTCTCCTTGTCTGAGCCATAACTCTTCTTTCTACCTTCCAGTGAACACCTTC
CCACCCCAGGTCCACCTGCTACCGCCGCCGTCGGAGGAGCTGGCCCTGAATGAGCTCTTG
TCCCTGACATGCCTGGTGGGAGCTTTCAACCCTAAAGAAGTGCTGGTGGGATGGCTGCAT
GGAAATGAGGAGCTGTCCCAGAAAGCTACCTAGTGTGAGCCCTAAAGGAGCCAGGC
GAGGGAGCCACCACCTACCTGGTGACAAGCGTGTTGCGTGTATCAGCTGAAACCTGGAAA
CAGGGTGACCAGTACTCCTGCATGGTGGGCCACGAGGCCTTGCCCATGAACTTCACCCAG
AAGACCATCGACCGTCTGTGGGTAAACCCACCAATGTCAGCGTGTCTGTGATCATGTCA
GAGGGAGATGGCATCTGCTACTGAGCCACCCTGCCTGTCCCTACTCCTAGAATAAACTCT
GTGCTCATCCAAAGTATCCCTGCACTTCCACCCAGTGCCTGTCCACCACCCTGGGGTCTA
CGAAACACAGGGAGGGGTCAGGGCCCAGGGAGGGAGAAATACCACCACCTAAGC

FIG. 61

62/89

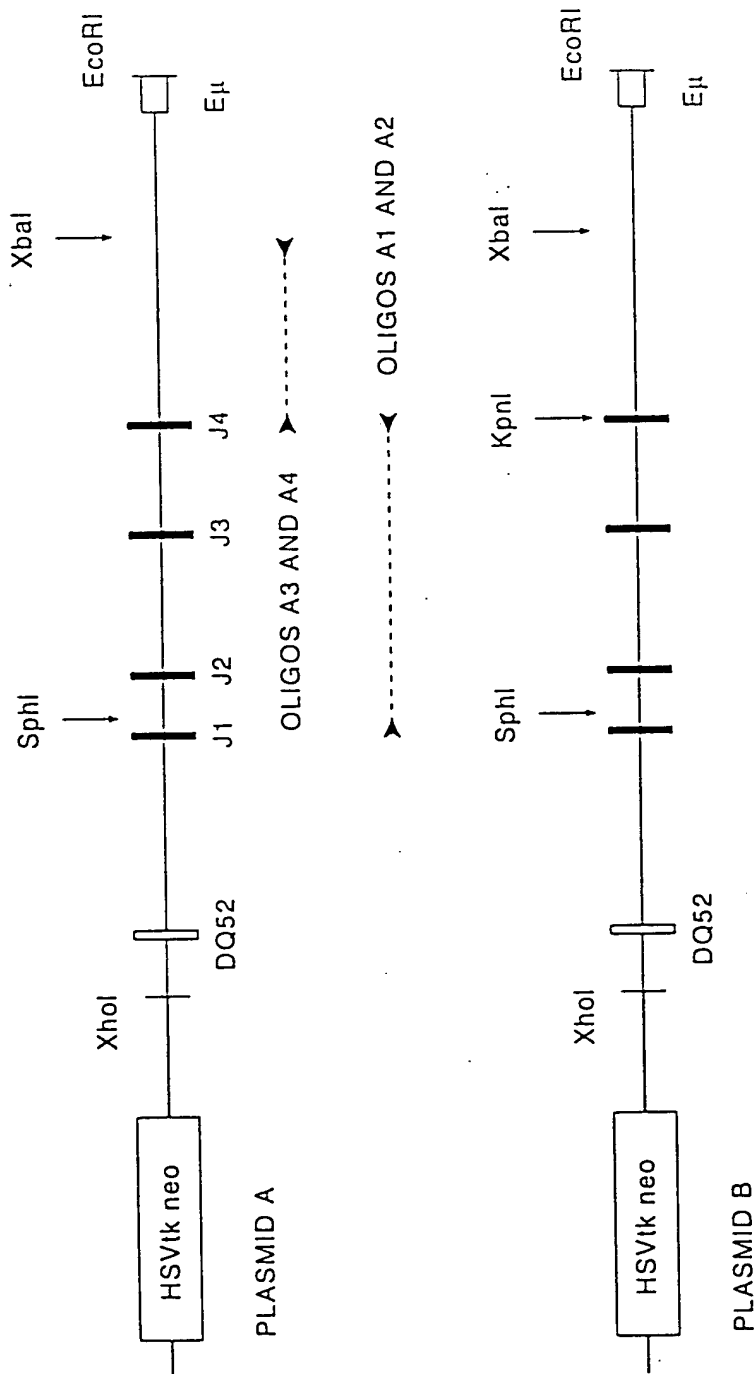


FIG. 62

63/89

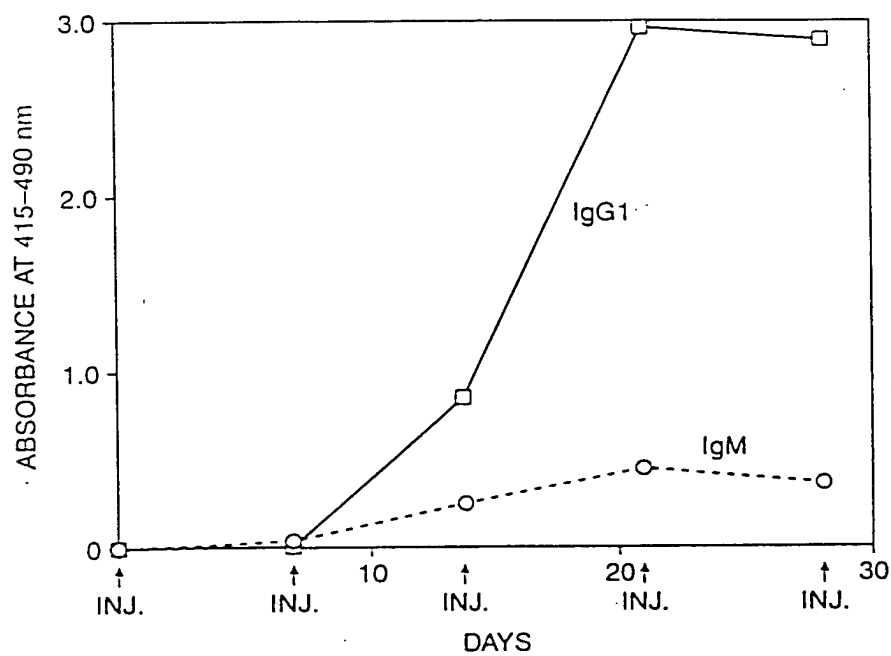


FIG. 63

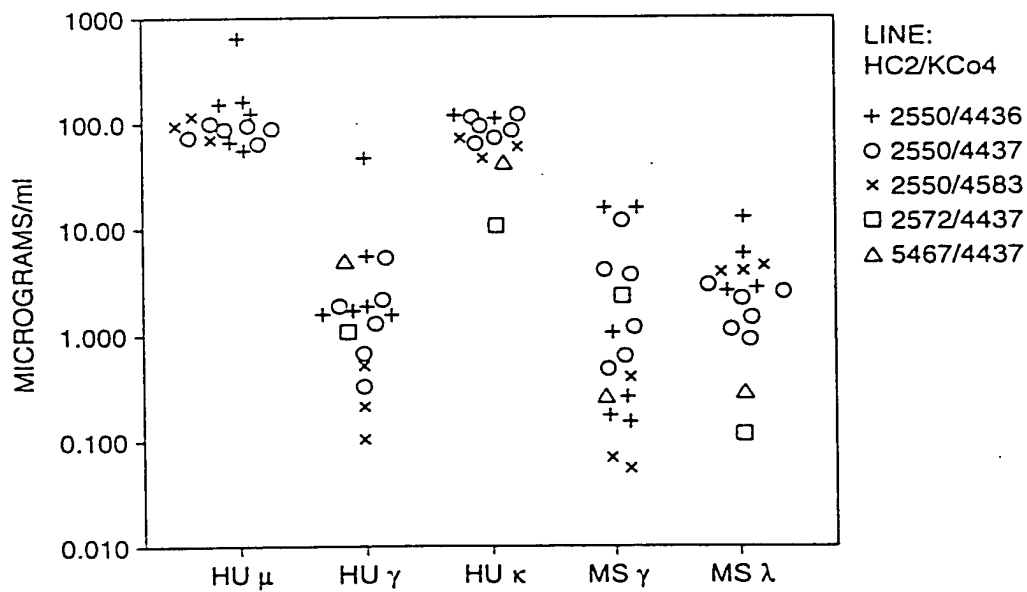


FIG. 70

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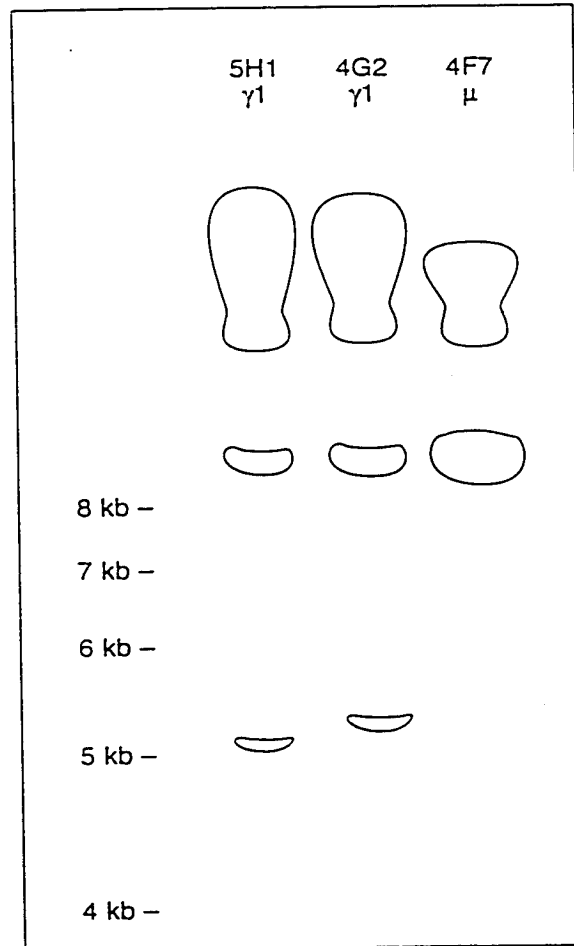


FIG. 64A

65/89

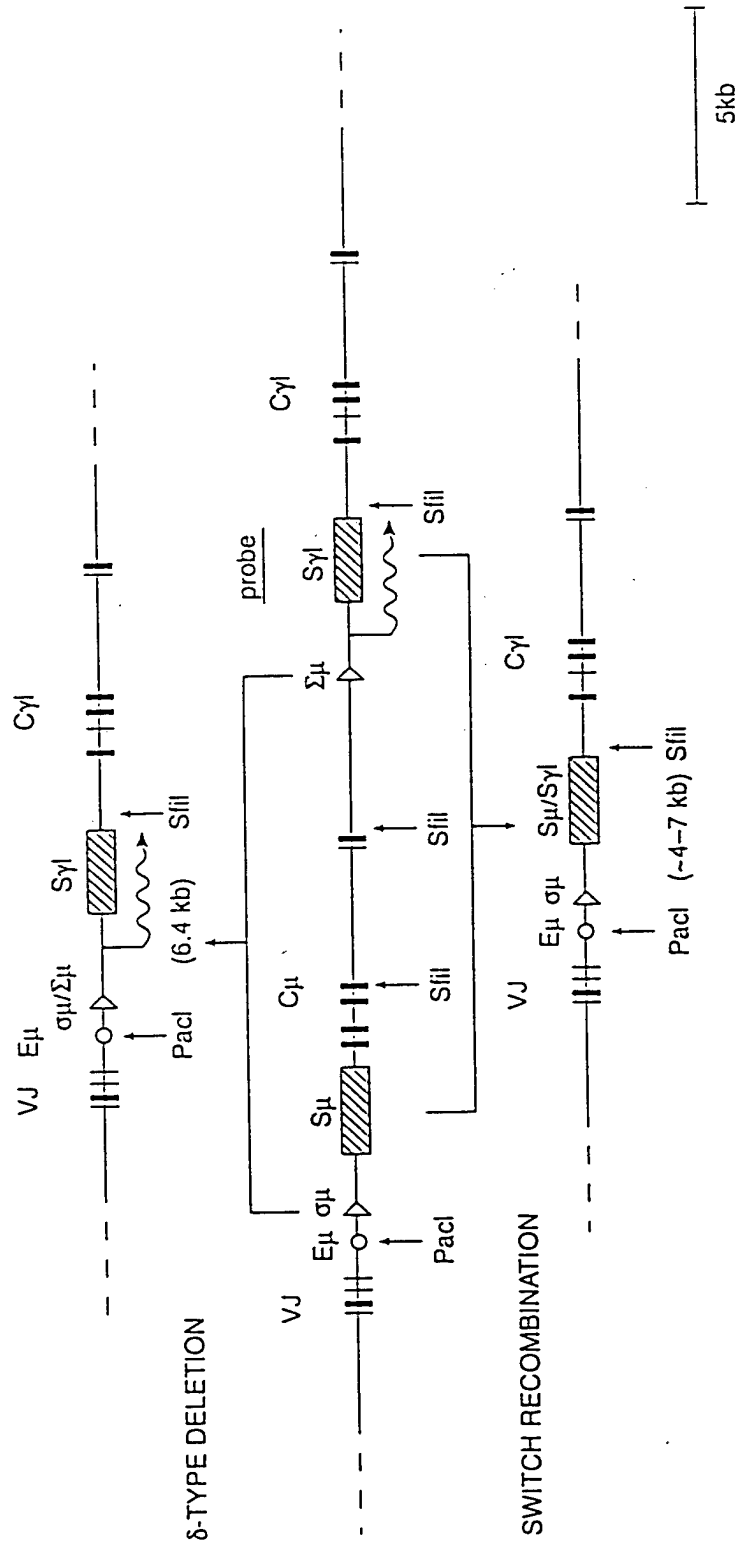


FIG. 64B

VH251	N D N	J	Cy	mouse γ1
2357.t5 DXP'1 J6	gcctcggaaccgccatgtattactgtgTgaga CATTtatgttcggggagttacG	cggTgTgAocgtctggggccaagggaaccacgggtcacggtctctctctcag ccaaaacgaacaccccccatctgtctatccac		
2357.t7 DHQ52 J3	gcctcggaaccgccatgtattactgtgTgaga CactgggCATTGGAT	gctCttgtGtctggggccaagggaacatgTcacggtctctctcag ccaaaacgaacaccccccatctgtctatccac		mouse γ2b
2357.t2 DHQ52 J3	gcctcggaaccgccatgtattactgtgTgaga actgggggATGAT	gcttttgatattctggggccaagggaacatggtcacggtctctctcag ccaaaacgaacaccccccatctgtctatccac		
2357.t3 D? J3	gcctcggaaccgccatgtattactgtgTgaga CAGGGGAGAGAT	gcttttgatattctggggccaagggaacatggtcacggtctctctcag ccaaaacgaacaccccccatctgtctatccac		
2357.t4 DXP'1 J4	gcctcggaaccgccatgtattactgtgTgaga CATAGGGacttatATTtcggggagttattTTC	tgactactggggccaagggaacccctgggtcacggtctctctcag ccaaaacgaacaccccccatctgtctatccac		
2357.t10 DHQ52 J3	gcctcggaaccgccatgtattactgtgTgaga actgggggATGAT	gcttttgatattctggggccaagggaacatggtcacggtctctctcag ccaaaacgaacaccccccatctgtctatccac		mouse γ3
2357.t1 D? J3	gcctcggaaccgccatgtattactgtgTgaga CATGGGTCTATG	gatattctggggccaagggaacatggtcacggtctctctcag ctacaacgaacagcccccatctgtctatccct		
2357.t6 DHQ52 J4	gcctcggaaccgccatgtattactgtgTgaga GAGAGCGGTcactgggggATCG	tttgactatTtggggccaagggaacccctgggtcacggtctctctcag ctacaacgaacagcccccatctgtctatccct		
2357.t8 DIR2 J3	gcctcggaaccgccatgtattactgtgTgaga AGGgaacccccCTGAT	gcttttgatattctggggccaagggaacatggtcacggtctctctcag ctacaacgaacagcccccatctgtctatccct		
2357.t9 DIR2R J6	gcctcggaaccgccatgtattactgtgTgaga Cgggggcct	tactactactacgggtatggacgtctggggccaagggaacacgggtcacggtctctctcag ctacaacgaacagcccccatctgtctatccct		human

FIG. 65

	20	30	40	50	52 a	53	60
WI251.G1	TCTCTGAAGATCTCTCTGAAGGTTCTGGATACAGCTTTACACAGCTACTCGATCGGCTGGGTGGCCAGATGCCCGGGAAGGCTGGAGTGGATGGGATCATCTATCTCTGGTCACTCTGATACAGATACAGCCCGTCTTCCAGGCCAGGTC						
J2
2599.7
2599.9
2599.11
2599.14
J3
2599.25
J4
2599.2
2599.5
2599.8
2599.23
2599.24
2599.28
J6
2599.10
2599.13

.....COR I

.....COR II

FIG. 66A.1

70 ACCATCTCAGCCGCAAGTCCATCAGCACCGCTACTCTGCAGTGGAGCAGCCTCGAAGGCTCTGGACACCCCATGTATTCTGTCCGACA 90

CAAGGGAactgggggGG
CAGAGGGGGGAAGGG
CAGAGGGGGGGGAAGGG
actgggTGG

CATGaaactggggatTCCCCGGG

ACGatcagatatttgactggttattataaacCTT
tatagcagcagcCTT
TCTtactatggttcggggag
CTCGattacgatatatttgactggttattataaacCT
CTCGattacgatatatttgactggttattataaacCT
CTCGatataacacgaactgaatacAGG

TACTACTACTACTACCGTATGGAGCTTCGGGCCCAGAGGCAC
.....
CCGATGCGCAGCGAAGCAAGAACAAAG
.....
GAGGGGGGGTTattactataggtcgggaggttatta
.....G.....
GAGGGGnrfnnannf(CAT)

CDR III

FIG. 66A.2

68/89

[illegible]

69/89

FIG. 66B.1

FIG. 66B.1

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[illegible]

FIG. 66B.2

WI251.CL	20	30	40	50	52 a	53	60
2357.m1	ICTCTGAGATCTCTGTAAAGGTTCTGGATACAGCTTTACAGCTACTGGATCGGCTGGTGCCGACATGCCCGGGAAGGCTTGGAGTGGATGGGATCATCTATCTCTGGTGACTCTGATACCAGATACAGCCCGCTCTTCCAAGGCCAGGTC						
2357.m2	.....					
2357.m5	.....					
2357.m6	.....					
2357.m7	.....					
2357.m12	.....					
2357.m13	.....					
2357.m14	.....					
2357.m16	.....					
2357.m17	.....					
2357.m18	.....					
2357.m19	.....					
2357.m20	.....					
2357.m22	.....					
2357.m26	.....					
2357.m27	.....					
2357.m28	.....					
2357.m29	.....					
2357.m30	.....					
2357.m31	.....					
2357.m32	.....					
2357.m33	.....					
2357.m35	.....					
2357.m36	.....					

CDR II

CDR I

FIG. 67A

	20	30	40	50	52 o 53	60
W1251.g1	1CTCTGAGATCTCCCTGTAAAGGTTCTGGATACAGCTTACAGCTACTGGATCGGCTGGGTGGCCAGATGCCCGGGAAGGCTTGGAGTGGATGGGGATCATCTATCTCTGGTGACTCTGTATACACAGTACAGCCCGCTCTTCCAGGGCCAGGTC					
J2	.....C.....					.....G.....
2357.g5						
J3						
2357.g10						
2357.g24						
J4						
2357.g1		I..I..GA				.....C.....G.....
2357.g2						
2357.g3						
2357.g4		.....C.A.....				.....GG.....
2357.g6		I..G.....				
2357.g11		.....A.....				
2357.g17		.....G.....I..I..C.....				.....A.....I.....
2357.g19						
2357.g23						
2357.g27						
2357.g30		.....C..I.....				
2357.g32		.....I.....A...T..T.....				
2357.g34						
2357.g36						
J5		A.....C.....				
2357.g25						
2357.g35						
J6						
2357.g18		A..I..C.....				
2357.g22	C.....T.....C.....				
2357.g28	G..A.....			I.....C.....
2357.g33						

COR I

COR II

FIG. 67B.1

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[illegible]

FIG. 67B.2

	20	30	40	50	52 o 53	60
WH56P1.GL	TCCCTGAGACTCTCTGTGCAGCTCTGCAATTCACCTTCAGTAGCTATGCTATGCACTGGGTCCCGCAGGCTCCAGGCCAAGGGCTGGAGTGGGTGGCAGTTATATCATATATGATGCAAGCAATAAATACTACCGAGACTCCGTGAAGGCCGATTC					
J2
5250.ln4
5250.ln5
5250.ln8
5250.ln10
5250.ln12
5250.ln17
5250.ln115
5250.ln118
5250.ln202
J4
5250.ln16
5250.ln19
5250.ln22
5250.sp26
5250.sp27
J6
5250.ln3
5250.ln24
5250.sp19
5250.sp22
5250.sp28
WH51P1.GL	TCGGTGAAGGTCTCTCGAAGGCTTCTGGAGGCCACTTCAGCAGCTATGCTATCAGCTGGGTGGACAGGCTCTGGACAAGGGCTTGAGTGGGAGGATCATCCCTATCTCTGGTATAGCAAACTACGCACAGAAGTTCAGGGCAGAGTC					
J3
5250.sp33
WH4.21.GL	ACCTGTCTCCACCTGCGGTCTATGGTGGGTCTTCAGTGGTTACTAGTGGAGTGGATCCGCCAGCCGCCAGGAGGGGCTGGAGTGGATTGGGGAATCAATCAT AGTGGAGGACCACTACACCCGTCCTCAAGAGTCGAGTC					
J4
5250.ln2
5250.sp30
5250.sp32

COR I

COR II

FIG. 68A



77/89

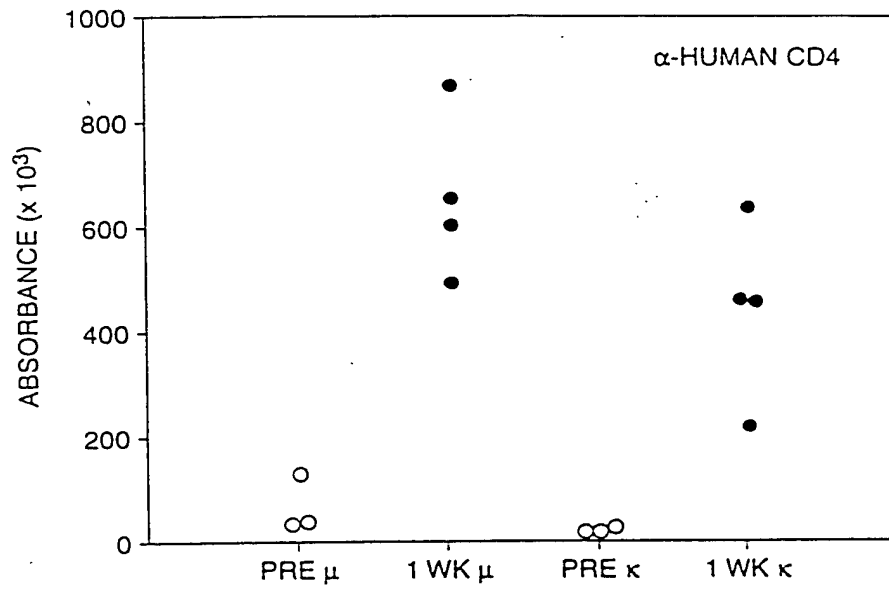


FIG. 71A

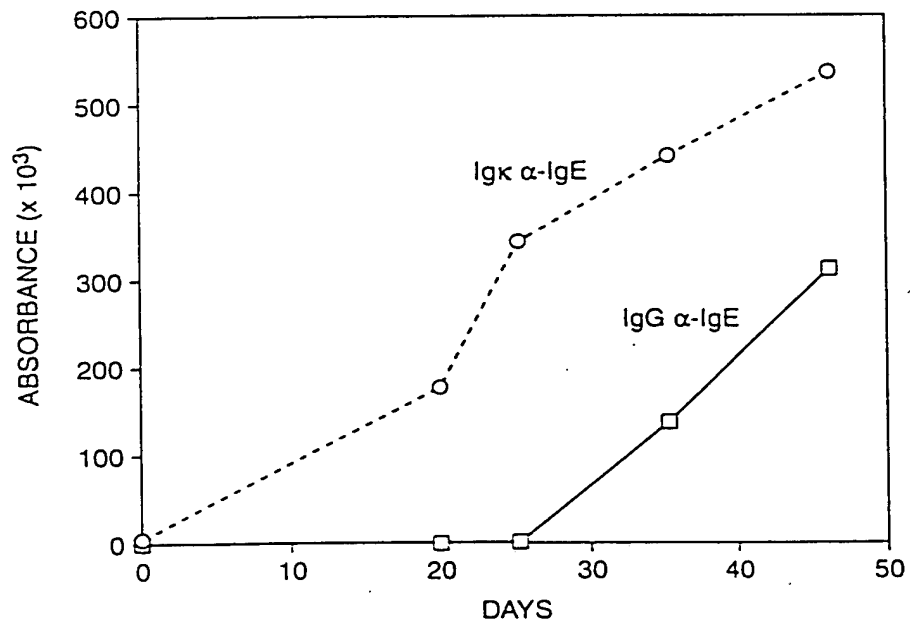


FIG. 71B

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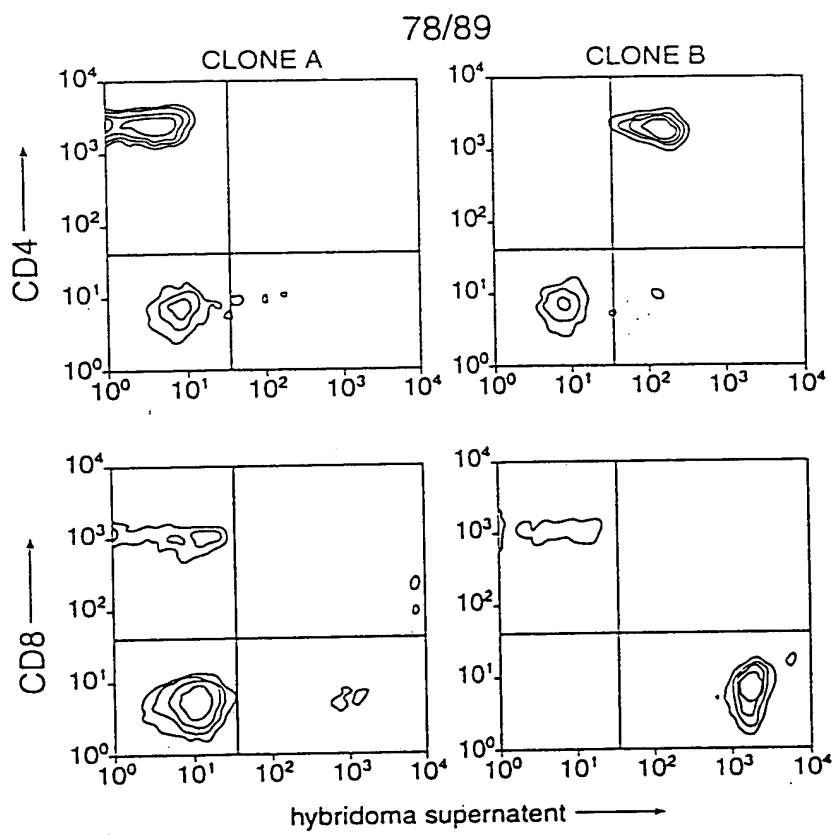


FIG. 72

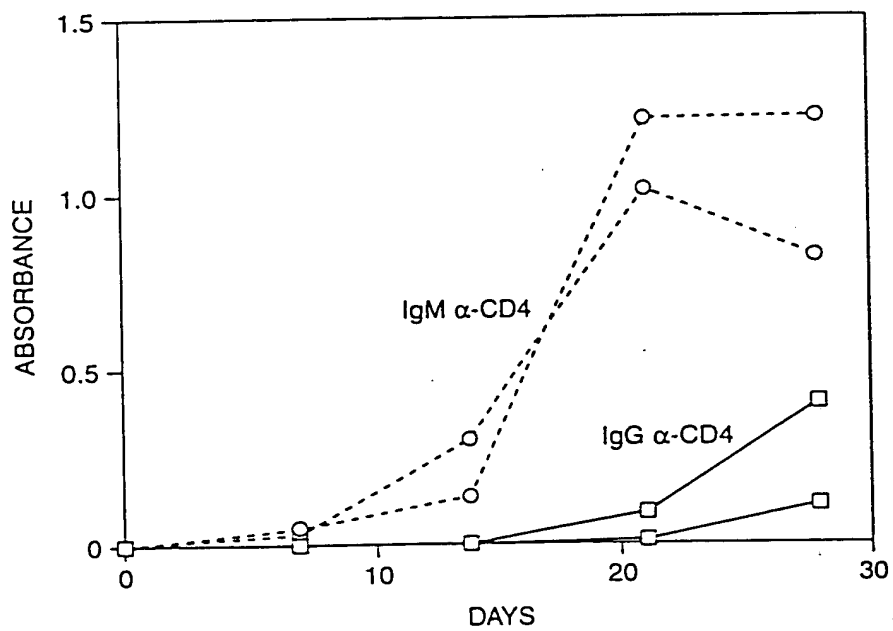


FIG. 73

79/89

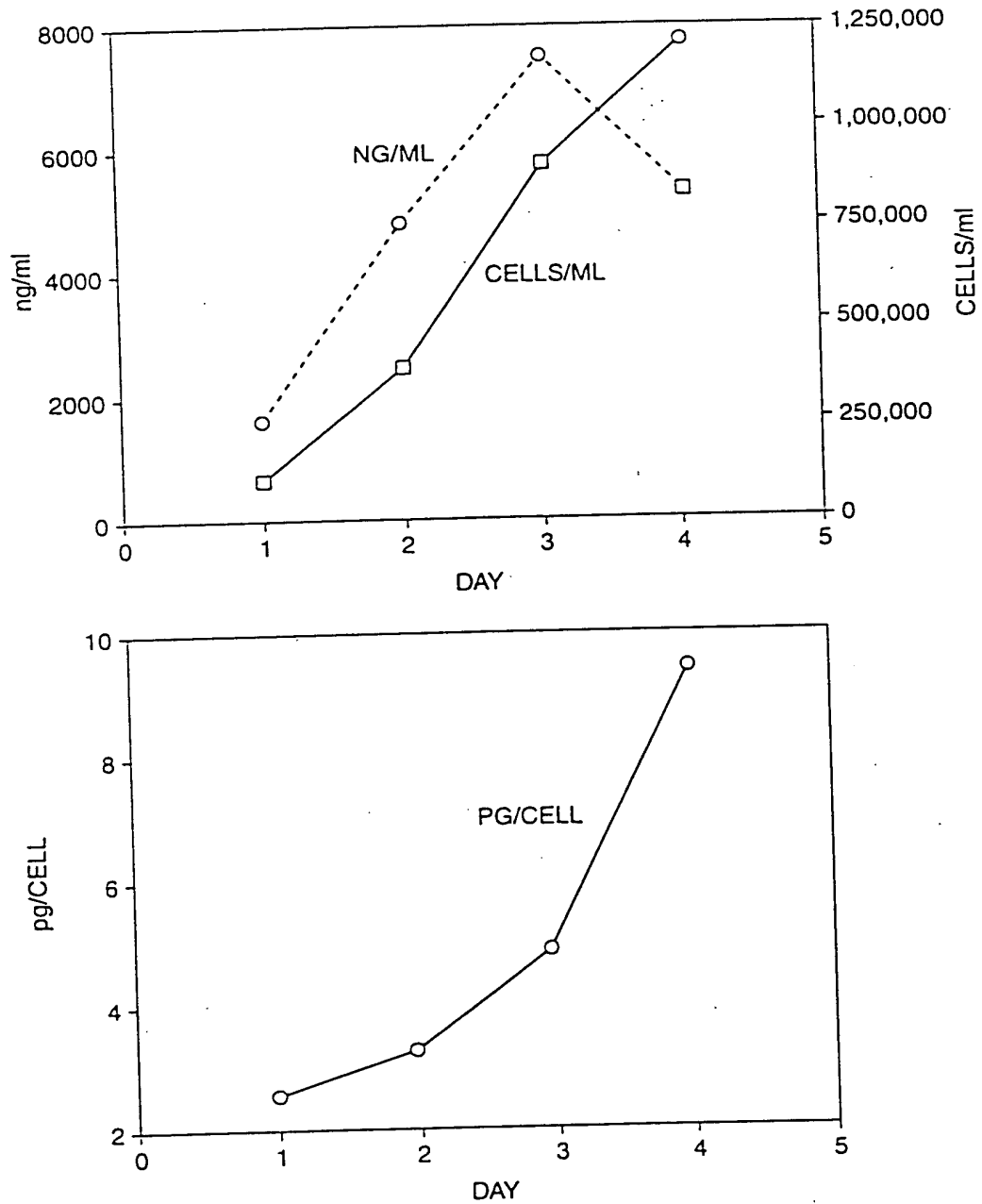


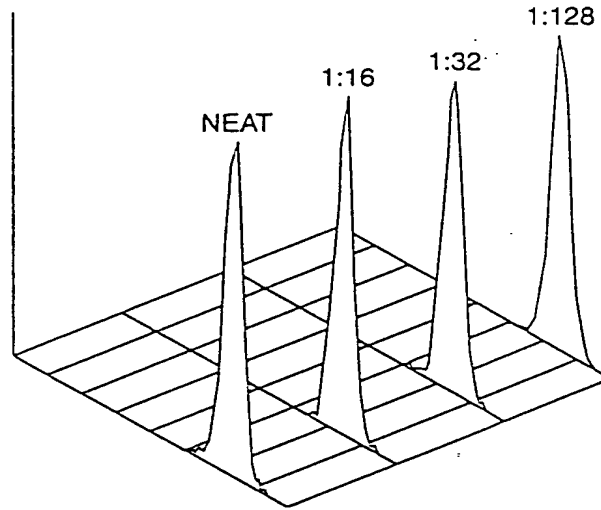
FIG. 74

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80/89

RPA-T4/2C11-8

#12:BDPHARMCOMP004\FL2-H\FL2-HEIGHT



Leu-3a/2C11-8

#12:BDPHARMCOMP025\FL2-H\FL2-HEIGHT

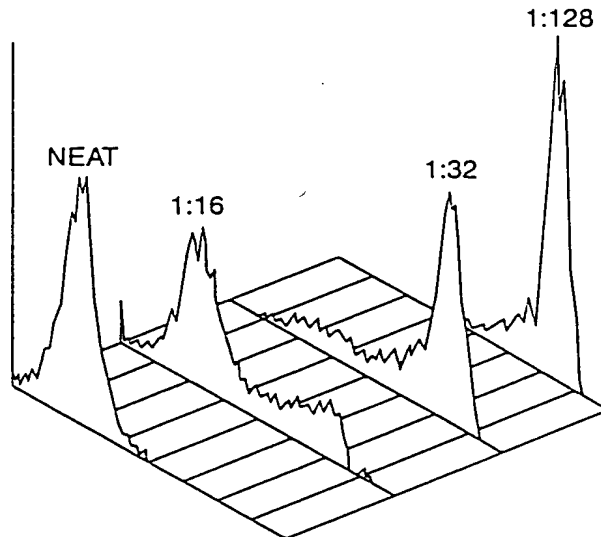


FIG. 75

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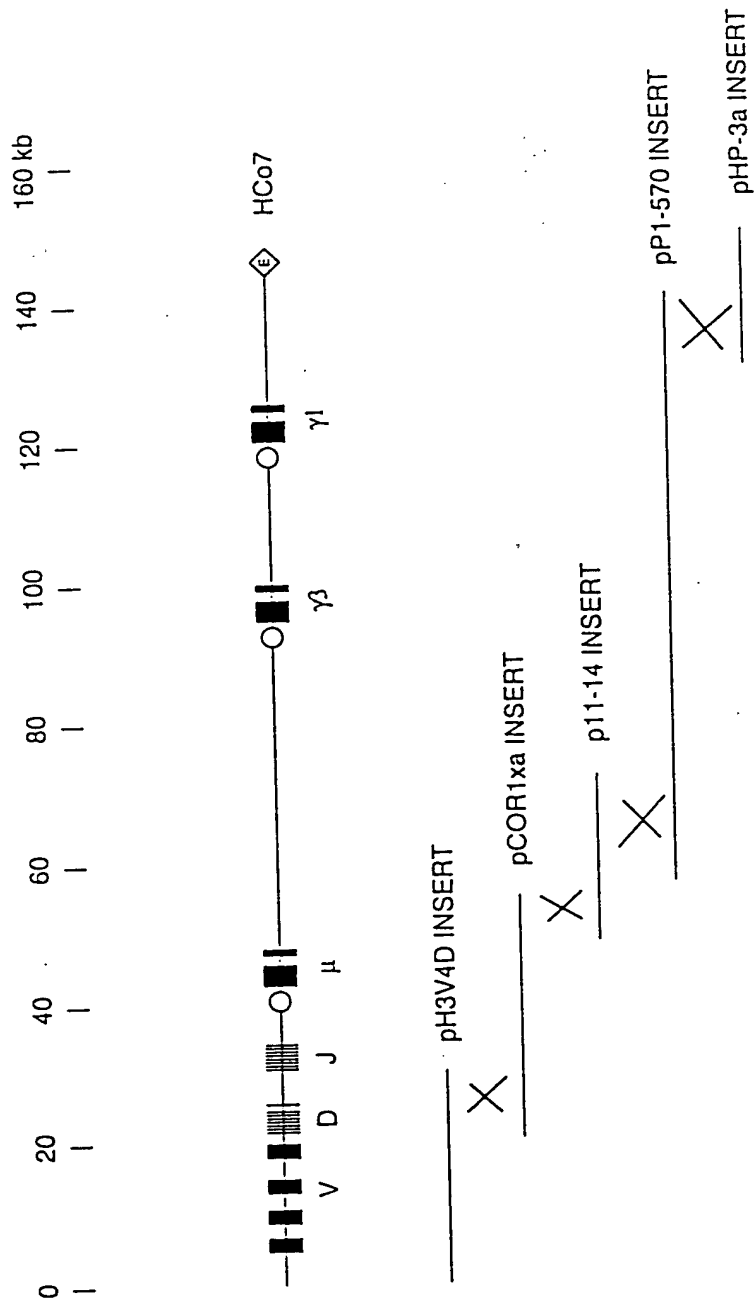


FIG. 76

pGP2b sequence:

AATTAGCggccgctgtcgacaagcttcgaattcagtatcgatgtggtacctggtacctcgagtcgGCCCCAGTATGCAA
 AAAAAAGCCCGCTCATTAGCGGGGCTCTTGGCAGAACATATCCATCGCGTCCGCCATCTCCAGCAGCCGCACGCGGCGCA
 TCTCGGGCAGCGTTGGGTCTGGCCACGGGTCCGCATGATCGTGCCTCTGTCTGAGGACCCGGCTAGGCTGGCGGGGT
 TGCCTTACTGGTTAGCAGAATGAATCACCAGATACGGGAGCGAACGTGAAGCGACTGCTGCTGCAAAACGTCTGCGACCTG
 AGCAACAACATGAATGGTCTTCGGTTTCCGTGTTTCGTAAAGTCTGGAAACGCGGAAGTCACGCGCCCTGCACCATTATGT
 TCCGGATCTGCATCGCAGGATGCTGCTGGCTACCTGTGGAACACCTACATCTGTATTAACGAAGCGCTGGCATTGACCC
 TGAGTGATTTTTCTCTGGTCCCGCCGCATCCATACCGCCAGTTGTTTACCCTCACAACGTTCCAGTAACCGGGCATGTTT
 ATCATCAGTAACCCGTATCTGTGAGCATCTCTCTCGTTTCATCGGTATCATTACCCCATGAACAGAAATTCCCCCTTAC
 ACGGAGGCATCAAGTGACCAAAACAGGAAAAACCGCCCTTAACATGGCCCGCTTTATCAGAAGCCAGACATTAACGCTTC
 TGGAGAACTCAACGAGCTGGACGCGGATGAACAGGAGACATCTGTGAATCGCTTCACGACCACGCTGATGAGCTTTAC
 CGCAGCTGCCTCGCGCGTTTCGGTGATGACGGTGAACCTCTGACACATGCAGCTCCCGGAGACGGTCAAGCTTTGCT
 GTAACGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCAGCGGTGTTGGCGGGTGTGGGGCGCAGCCATGACCC
 AGTCACGTAGCGATAGCGGAGTGATACTGGCTTAACATGCGGCATCAGAGCAGATTGTACTGAGAGTCCACCATATGC
 CGTGTAATACCGCACAGATGCGTAAGGAGAAAAATACCGCATCAGGCGCTCTTCCGCTTCTCGCTCACTGACTCGCTG
 CGCTCGGTGCTTCGGTTCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAA
 CGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATA
 GGCTCCGCCCCCTGACGAGCATCAAAAAATCAGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATAC
 CAGGCGTTTTCCCCCTGGAAGCTCCCTCGTGGCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCT
 CCGTTCGGGAAGCGTGGCGCTTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCCGTGTAGGTGCTTCGCTCCAAGCTGG
 GCTGTGTGCACGAACCCCGCTTCAGCCCGACCGCTGCCCTTATCCGGTAACATCGTCTTGAGTCCAACCCGTAAGA
 CACGACTTATCGCCACTGGCAGCAGCCAggcgcgcccttggcctaagaggccaCTGGTAACAGGATTAGCAGACGAGGTA
 TGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTC
 TGCTGAAGCCAGTTACCTTCGGAAGAGTTGGTAGCTTGTATCCGGCAAACAAACCCGCTGGTAGCGGTGGTTTT
 TTTGTTTGAAGCAGCAGATTACCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGC
 TCAGTGAAGCAAACTCAGTTAAGCGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATT
 AAAAAATGAAGTTTTAAATCAATCTAAAGTATATATCAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGCA
 CCTATCTCAGCGATCTGTCTATTTCTGTTATCCATAGTTGCCGACTCCCGCTCGTGTAGATAACTACGATACGGGAGGG
 CTTACCATCTGGCCCCAGTCTGCAATGATACCGCGAGACCCACGCTCACCAGGCTCCAGATTTATCAGCAATAAACGAGC
 CAGCCGGAAGGGCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCT
 AGAGTAAGTAGTTGCCAGTTAATAGTTTGGCGCAACGTTGTGCCATTGCTCCAGGCATCGTGGTGTACCGCTCGTCTGT
 TGGTATGGCTTCATTGAGTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCATGTGTGCAAAAAAGCGGTTA
 GCTCCTTCGGTCTCCGATCGTTGTGAGAAGTAAGTTGGCCGAGTGTATCACTCATGGTTATGGCAGCACTGCATAAT
 TCTCTTACTGTATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAAGTCAACCAAGTCACTTCTGAGAATAGTGTAT
 GCGGCGACCGAGTTGCTCTTGGCCGGCGTCAACACGGGATAATACCGCGCCACATAGCAGAACTTTAAAGTGTCTATCA
 TTGAAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTGATGTAACCCACTCGTGCA
 CCCAACTGATCTTCAGCATCTTTTACTTTTACCAGCGTTTCTGGGTGAGCAAAAAACGGAAGCAAAATGCCGAAAAA
 GGAATAAGGGGACACGGAATGTTGAATACTCATACTCTTCTTTTCAATATTATGAAGCATTATCAGGGTTATT
 GTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATAACAAATAGGCGTTCCCGGCACATTTCCCGAAAAAGTG
 CCACCTGACGTCTAAGAAACCATATTATCATGACATTAACCTATAAAAAATAGCGGTATCACGAGGCCCTTTCTGCTTCA
 AG

FIG. 77A

09724965-112800

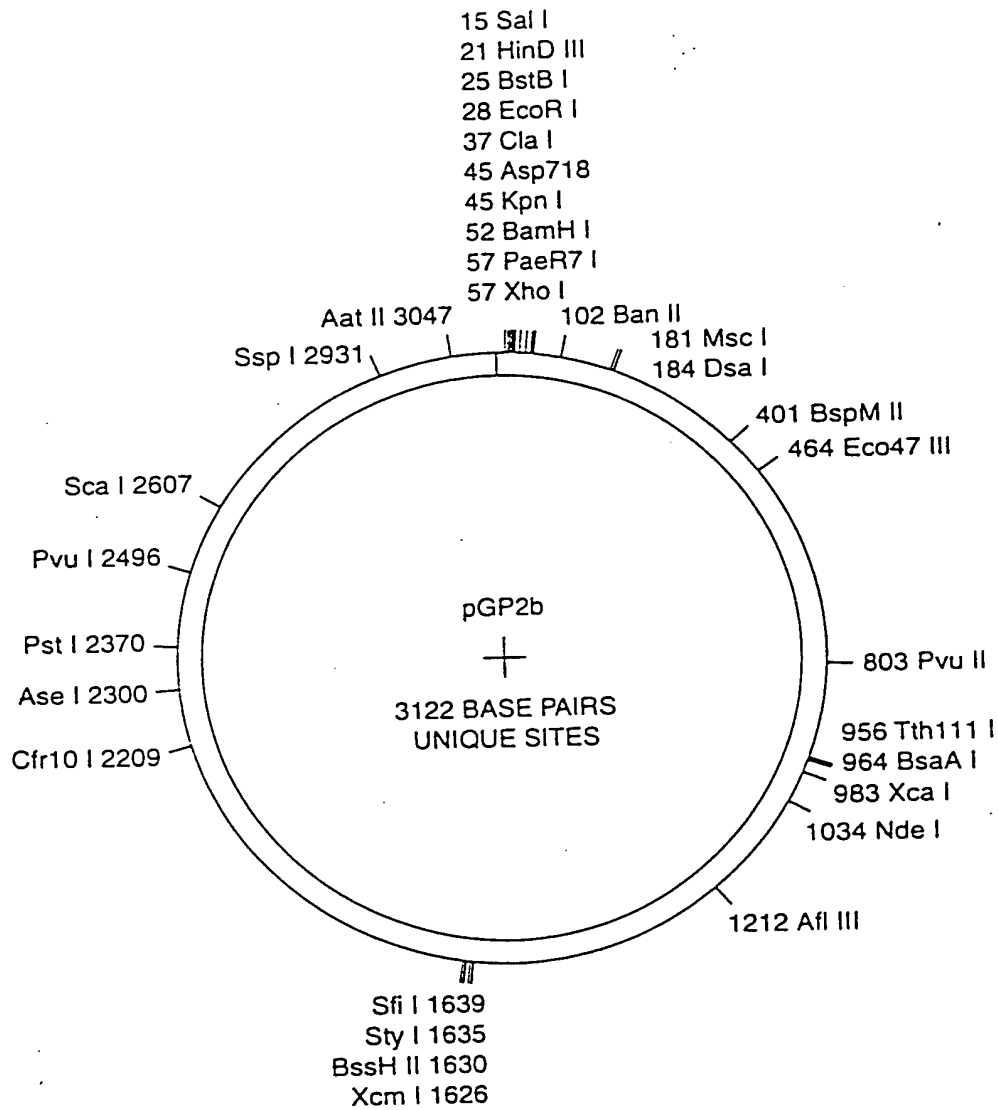


FIG. 77B

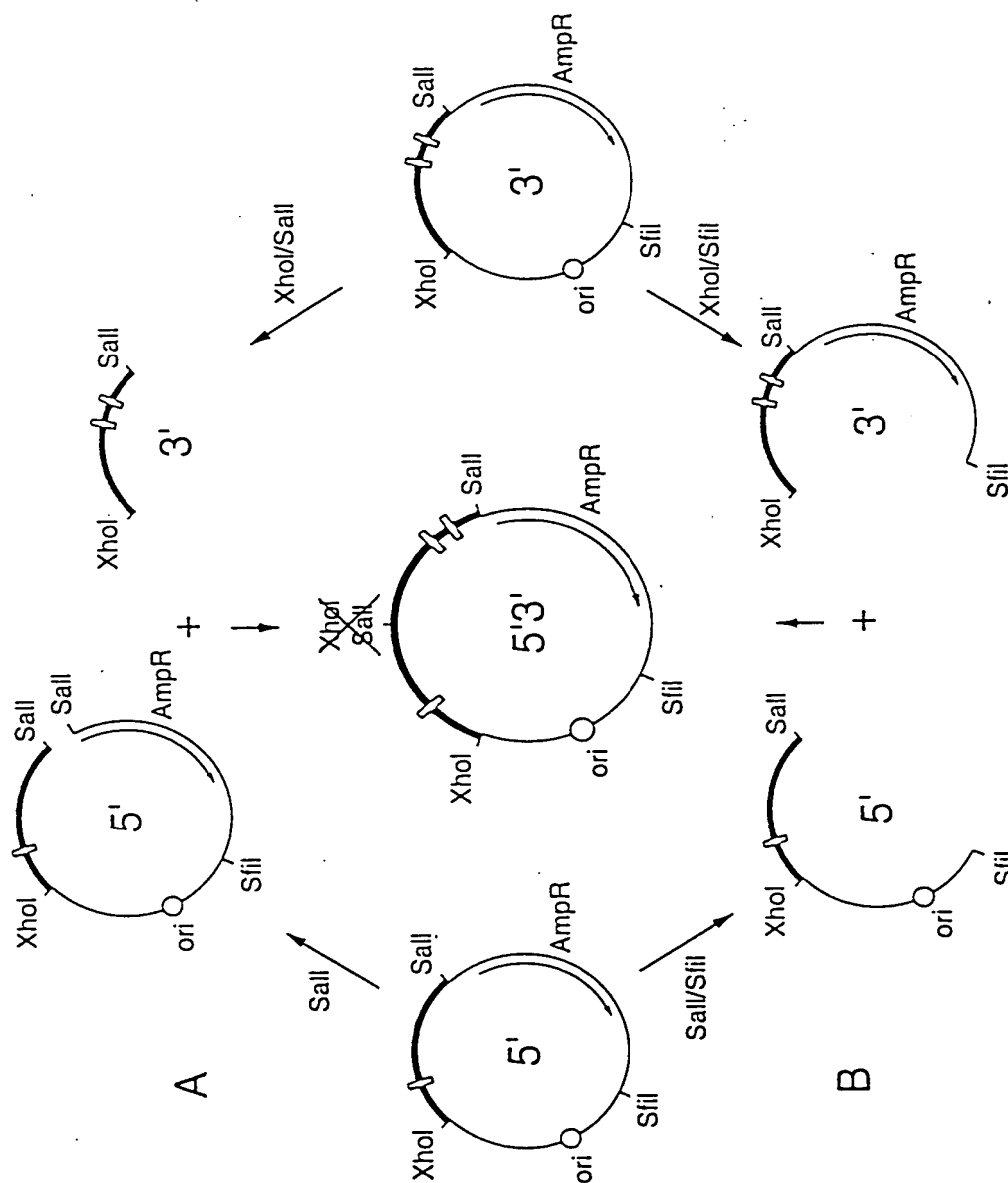


FIG. 78

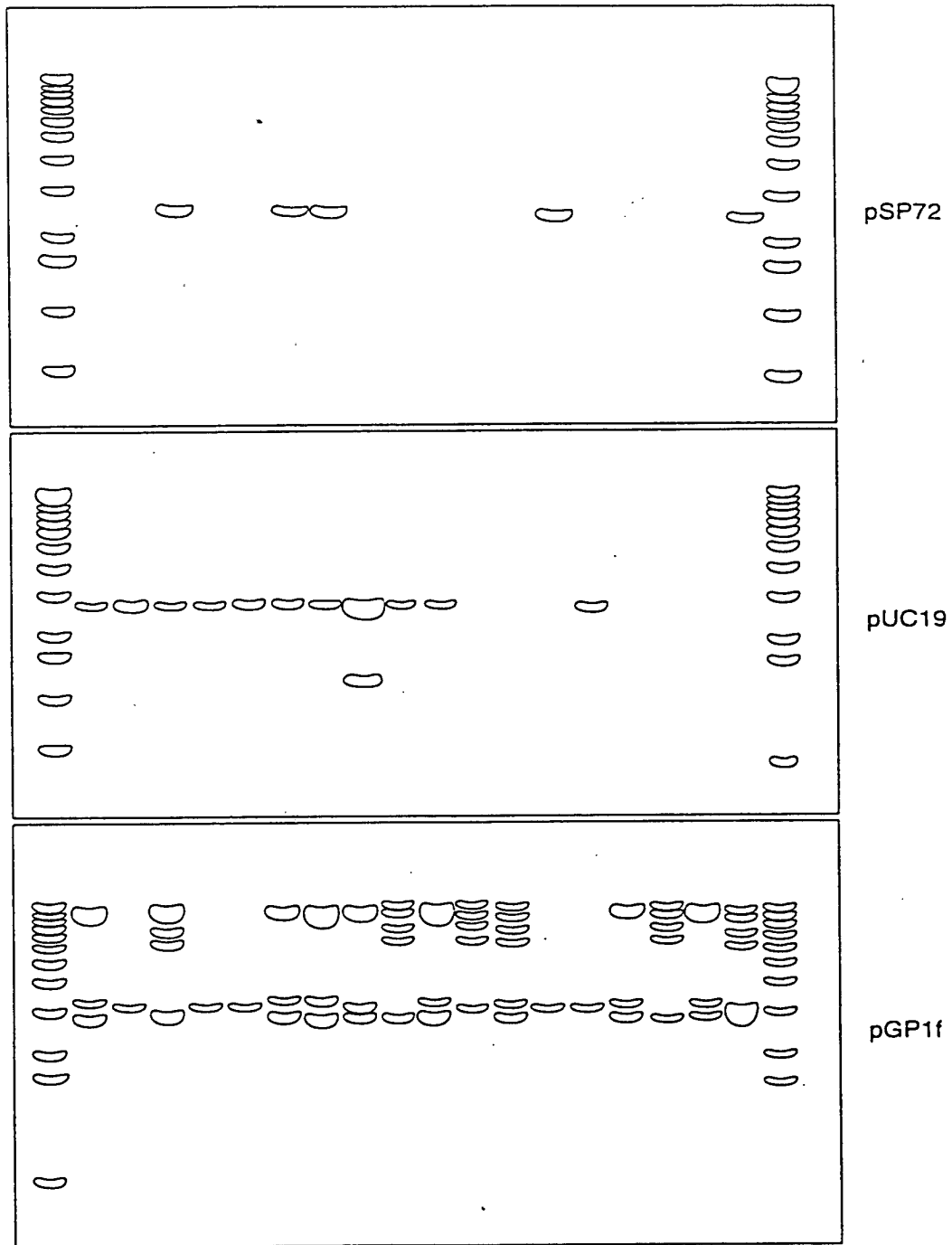


FIG. 79

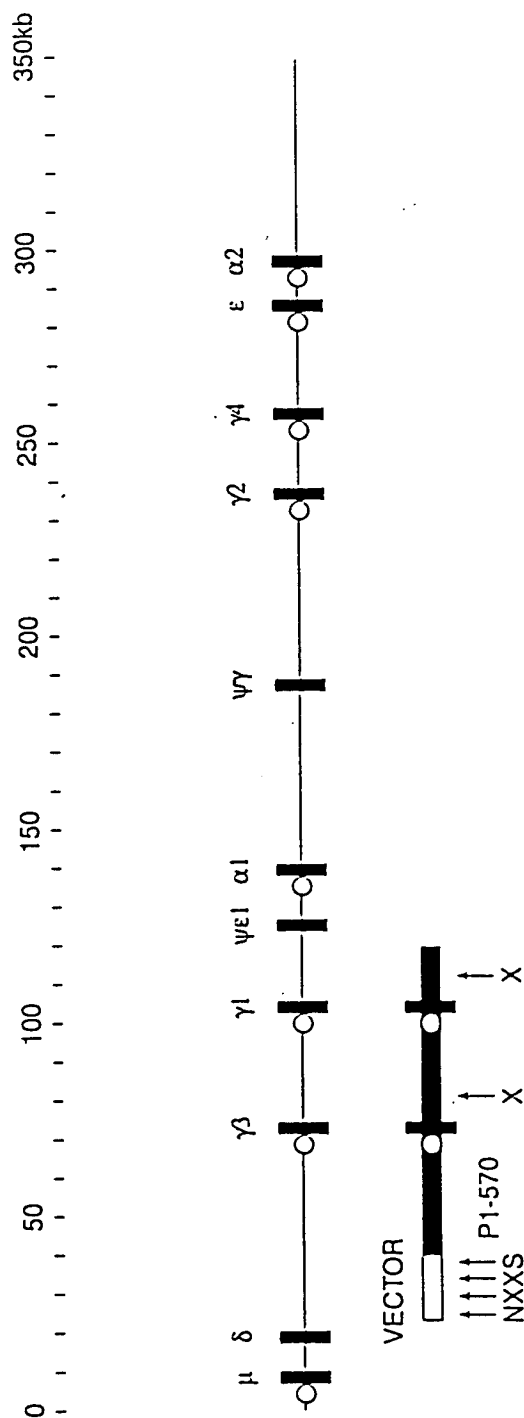


FIG. 80

87/89

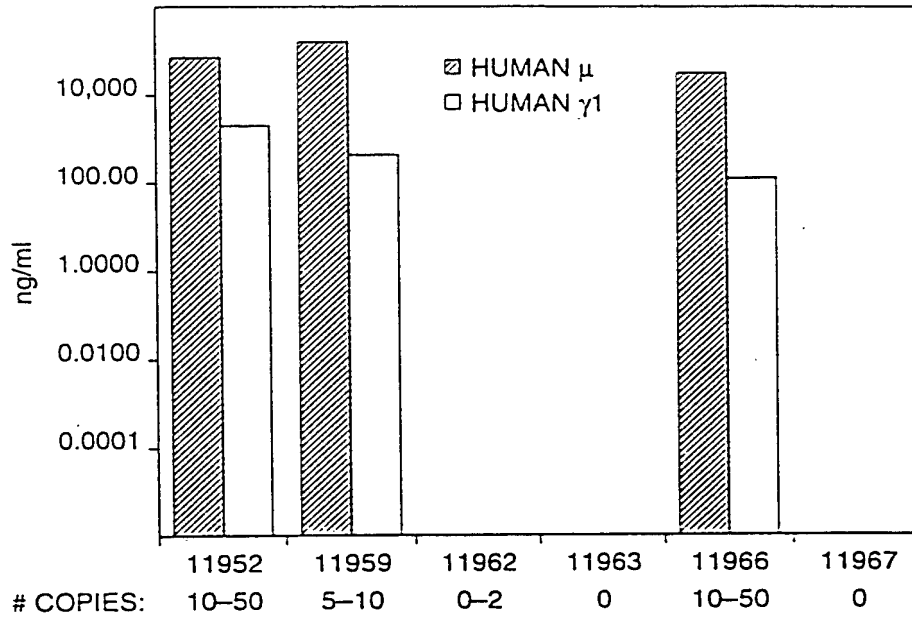


FIG. 81

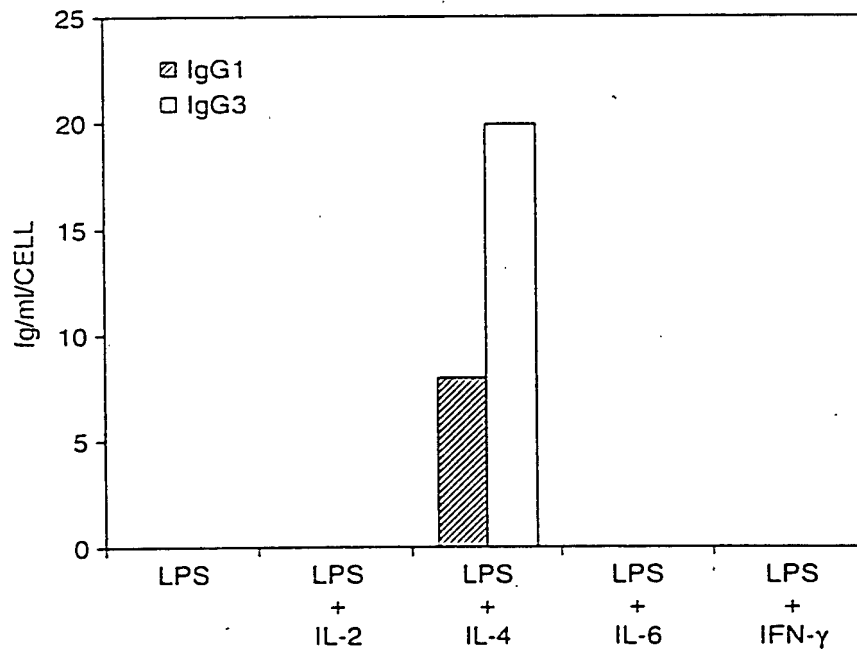


FIG. 84

008211 5964260

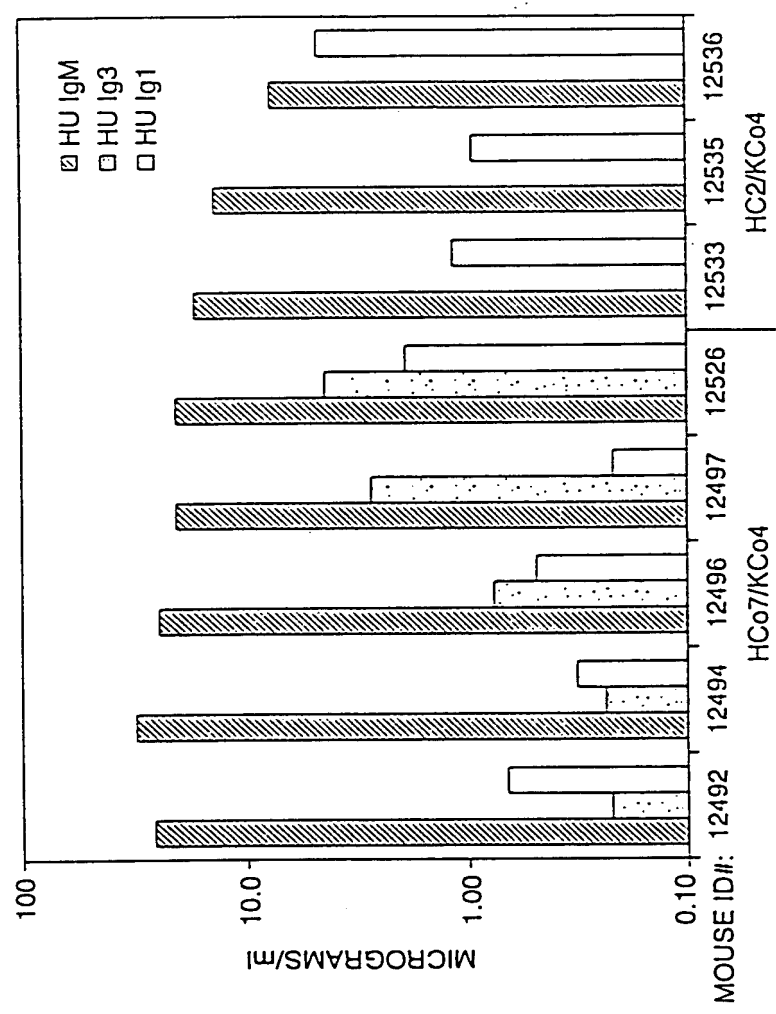


FIG. 82

89/89

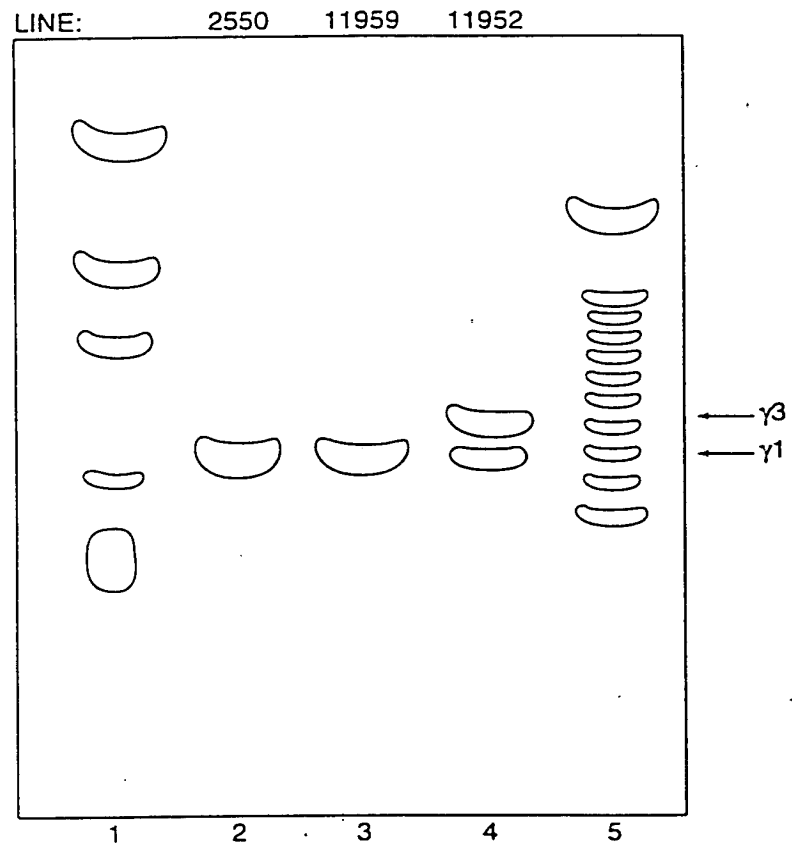


FIG. 83

008211 5964260

00821" 59642260

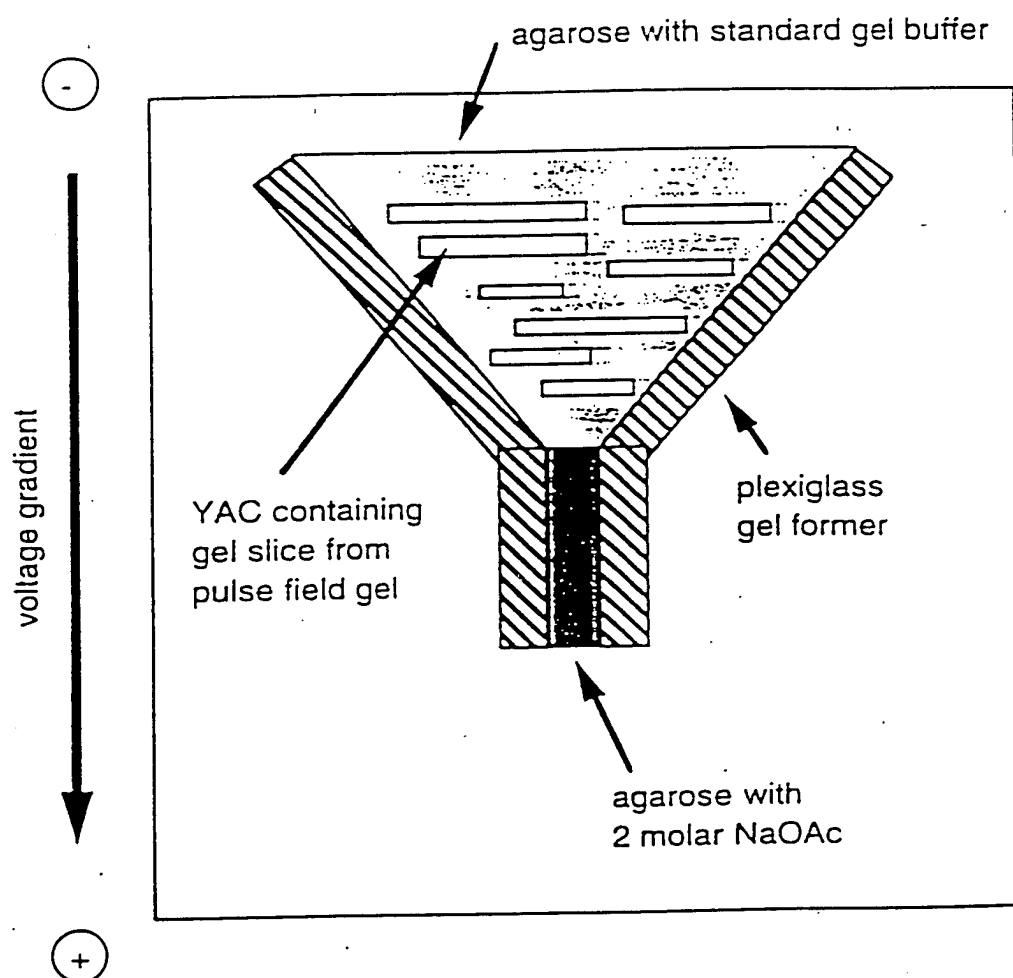


Figure 85

003211" 59642460

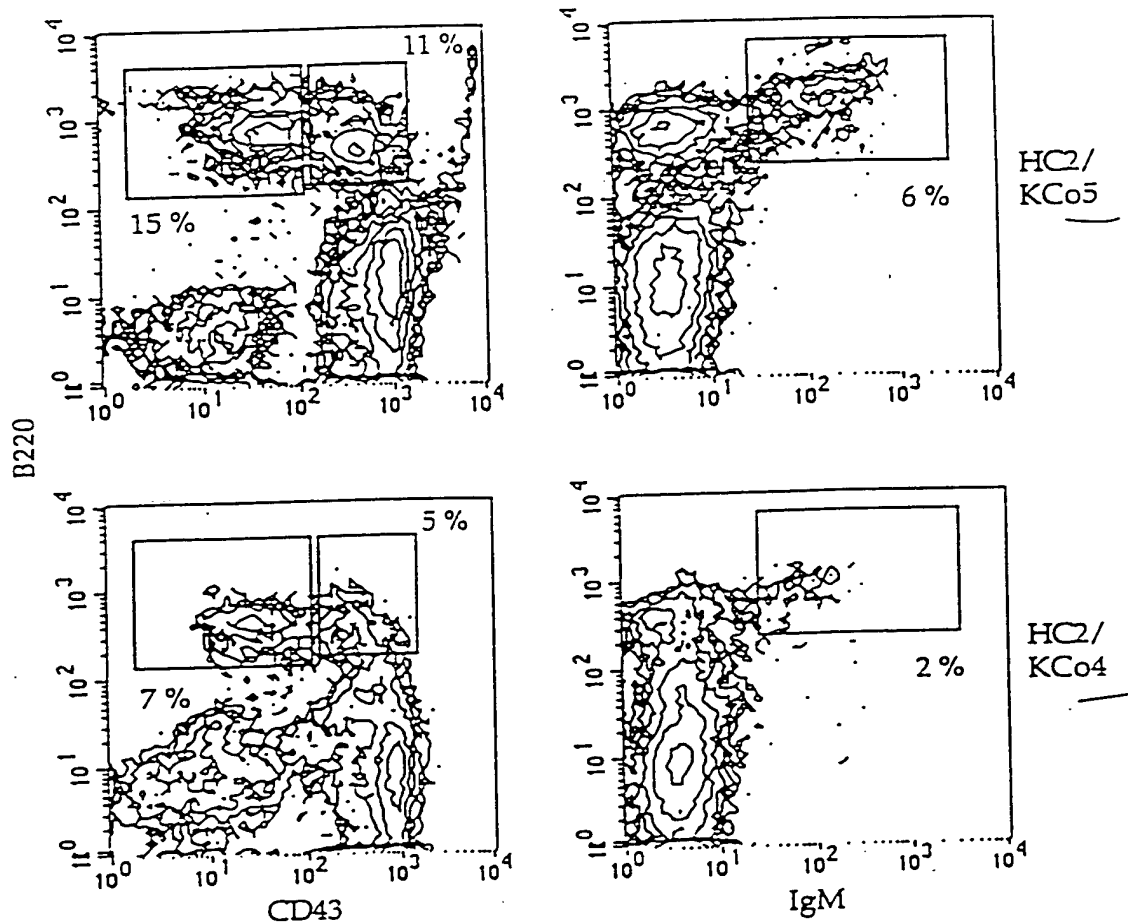


Figure 86

008211" 59642/60

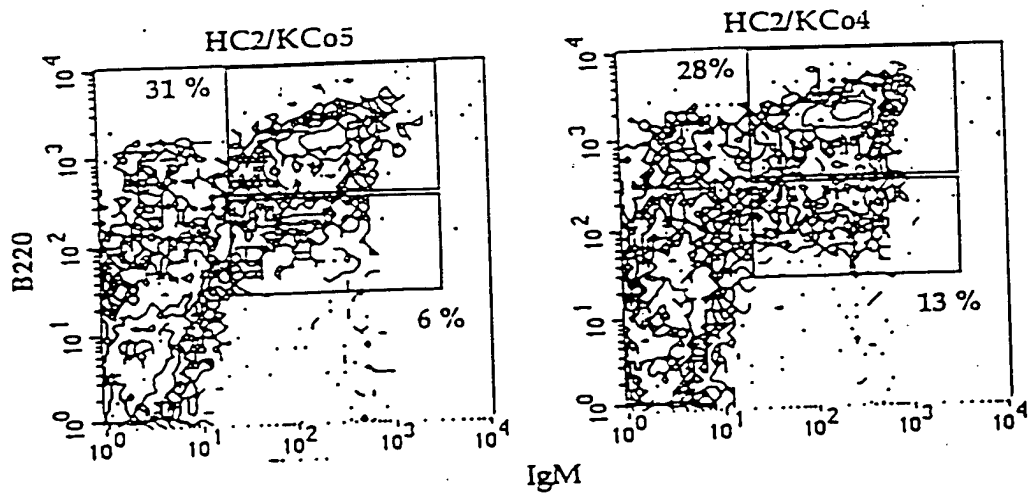


Figure 87

00821 59642/60

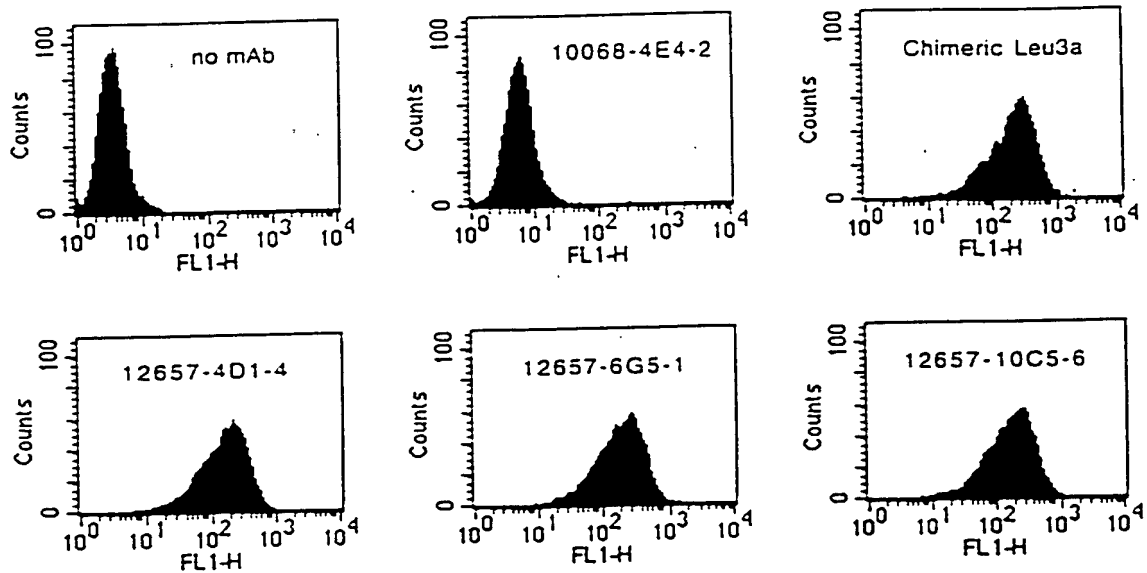


Figure 88

000001 5964260

Cells pre-incubated with:

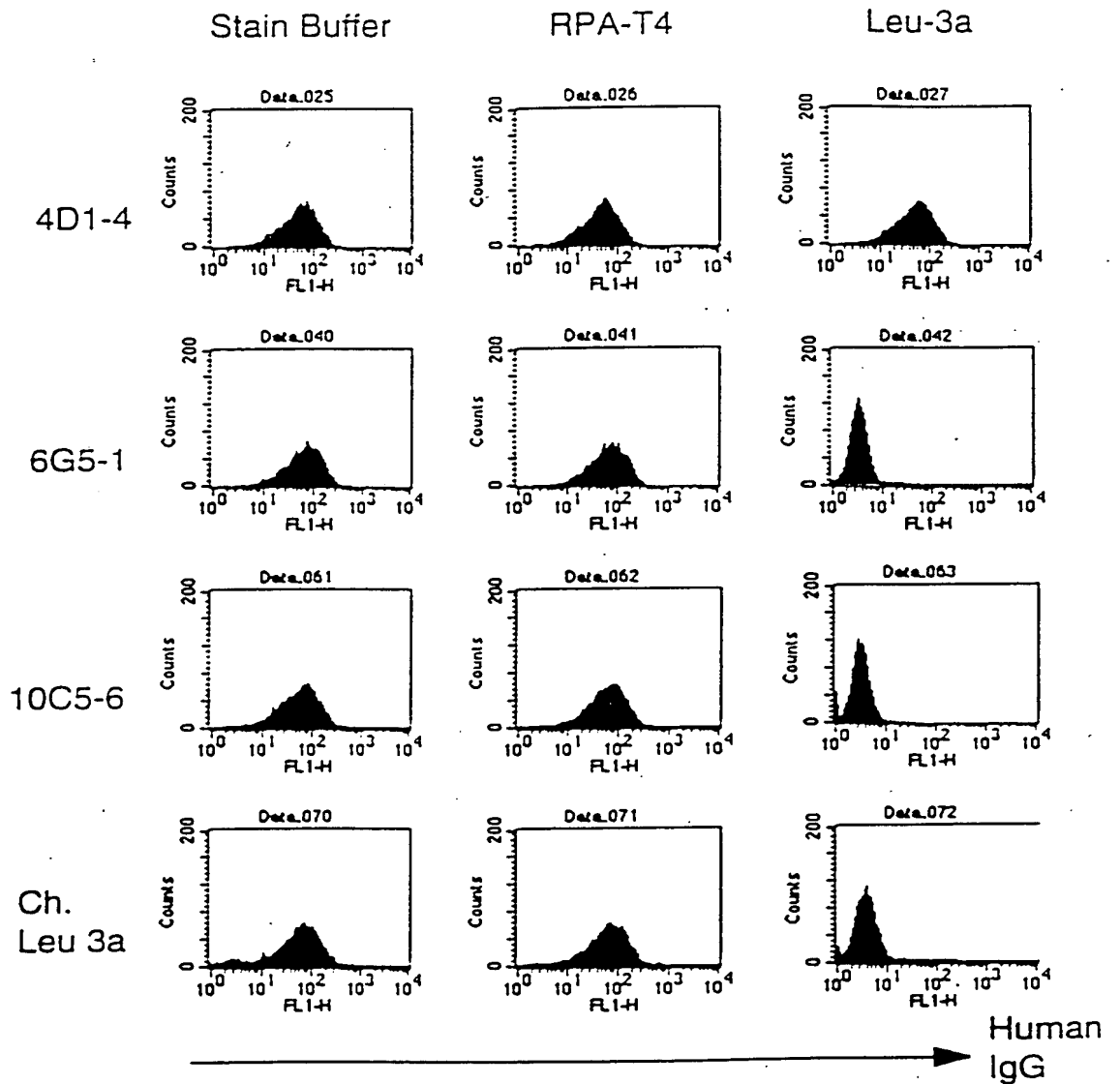


Figure 89

09724965-112800

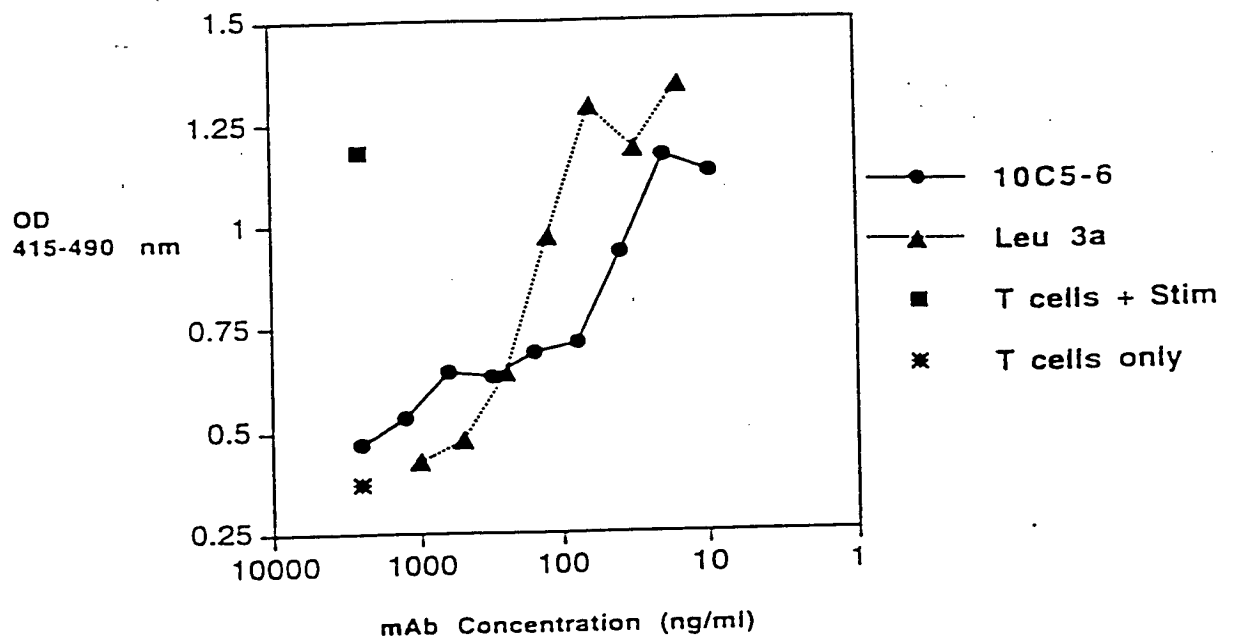


Figure 90

Figure 91

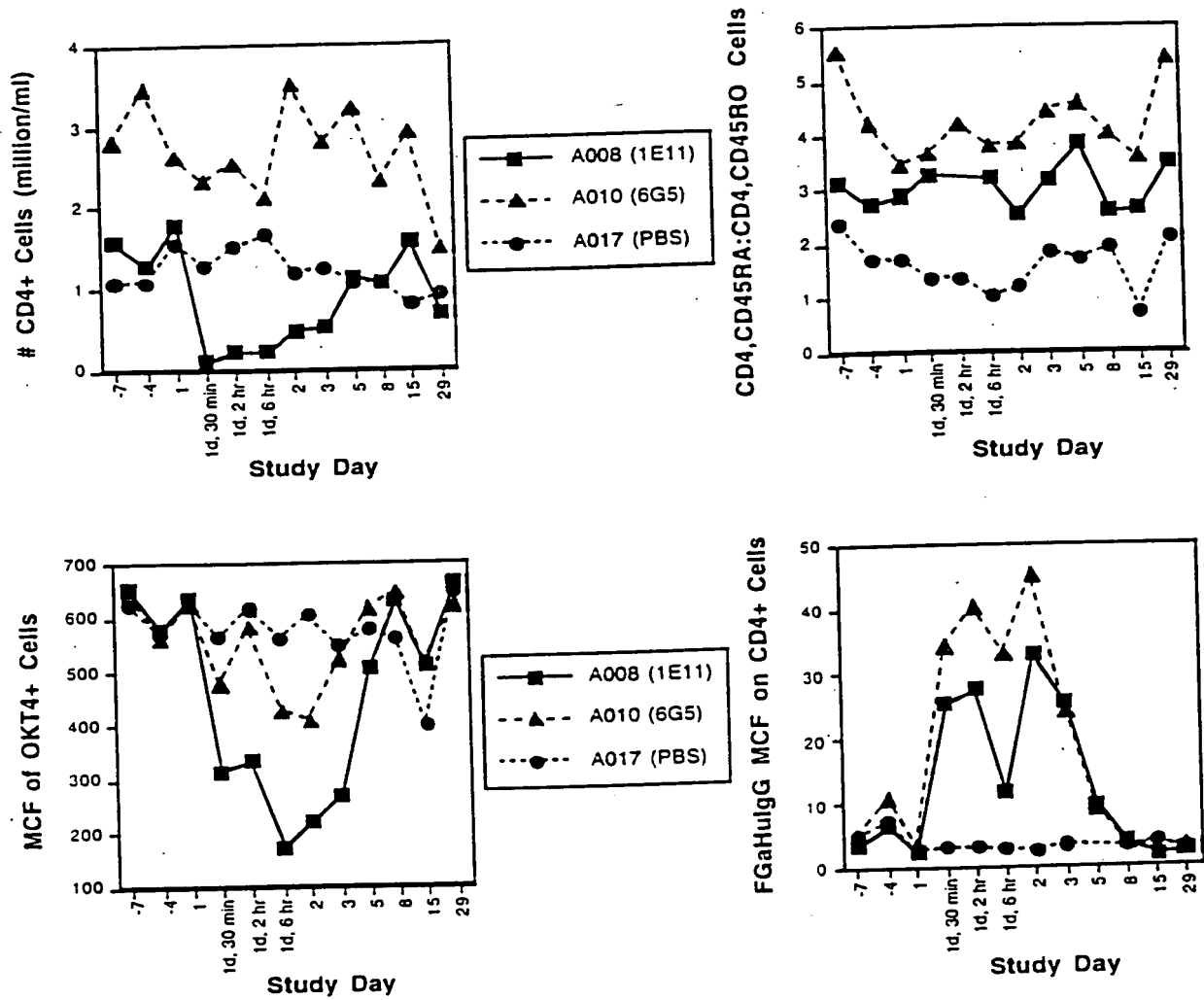
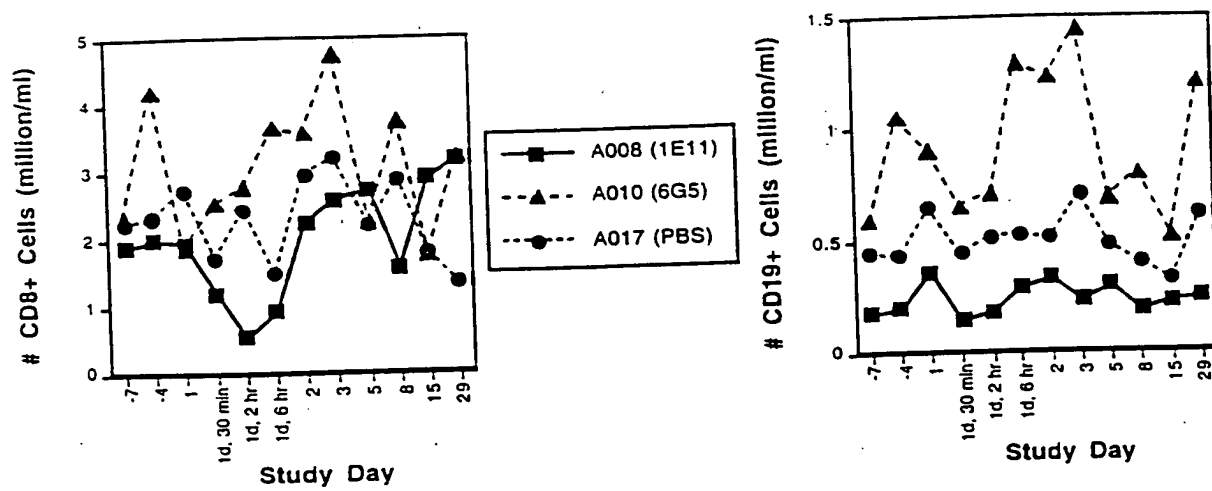
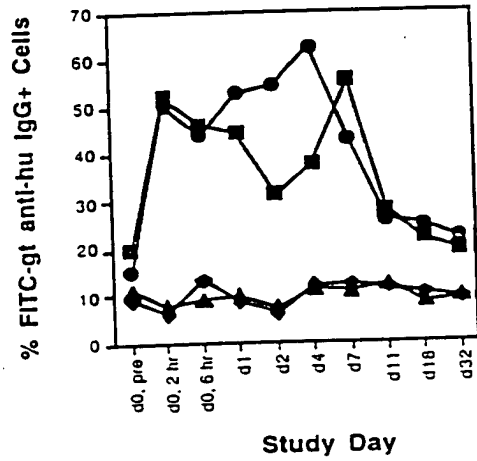
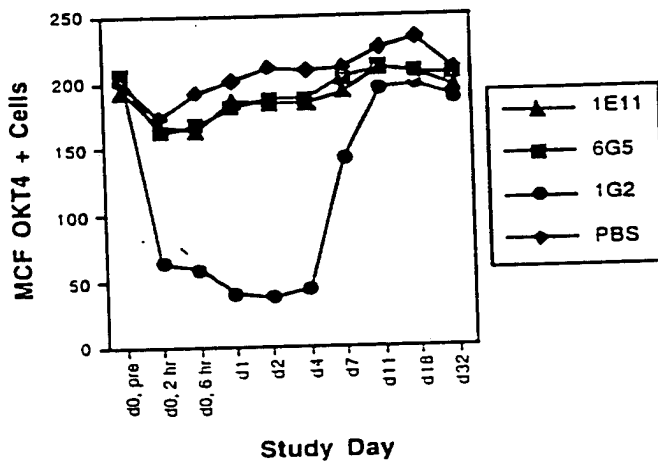
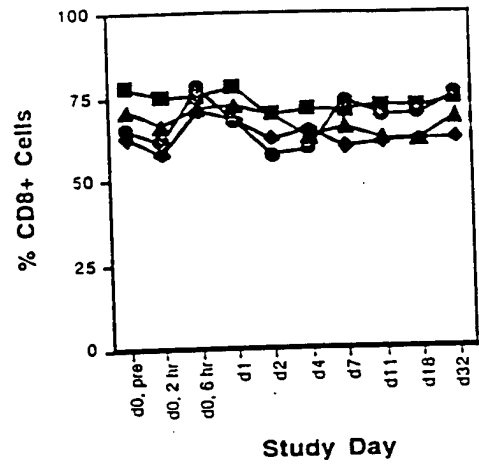
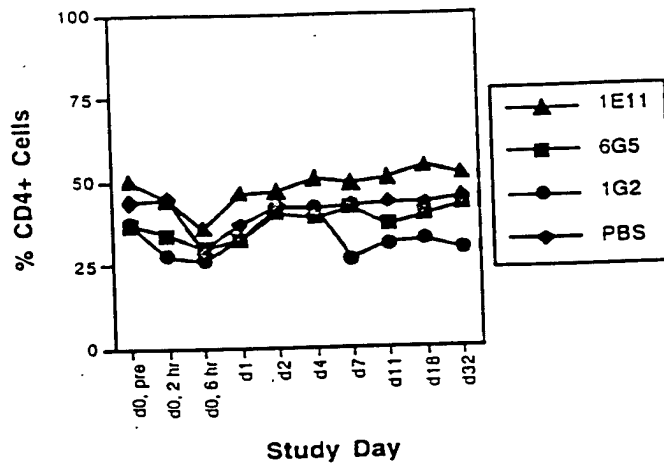


Figure 92



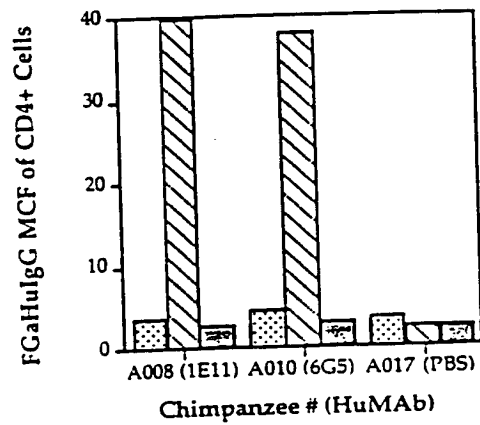
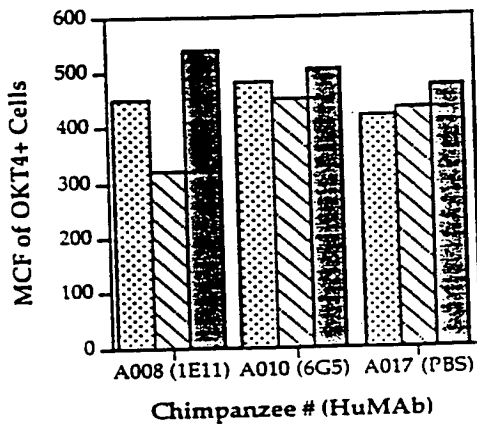
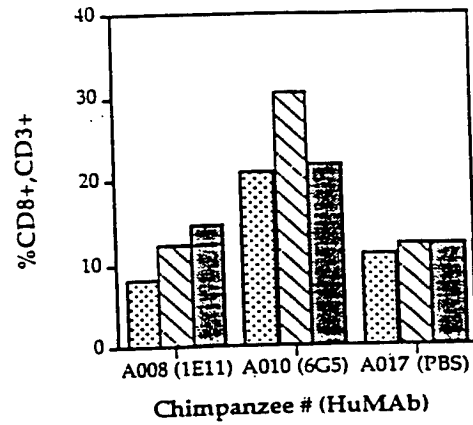
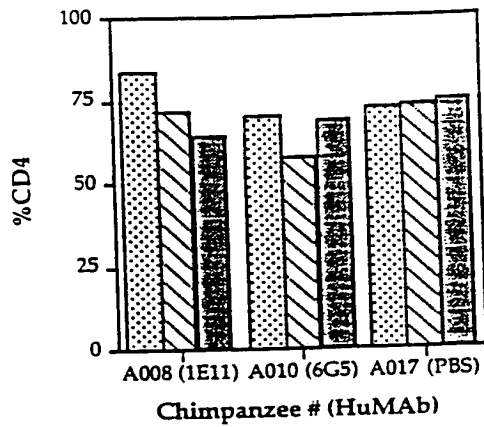
003211" 59642/60

Figure 93



008211" 5964260

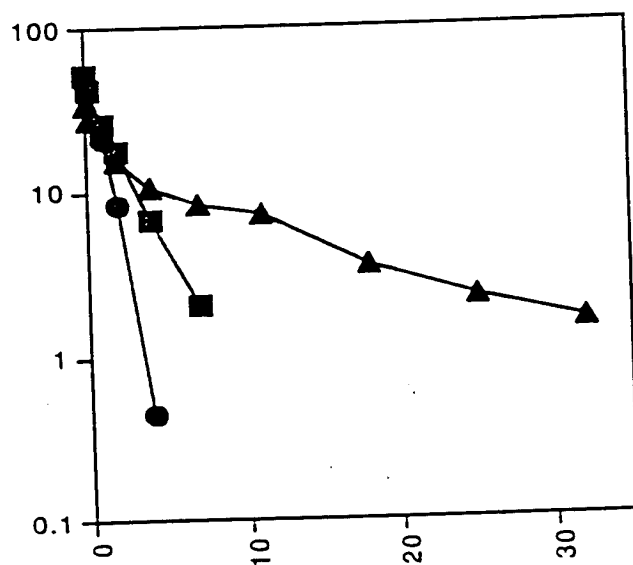
Figure 94



008277" 59642.60

Figure 95

Anti-CD4 HuMAb Concentration ($\mu\text{g/ml}$)



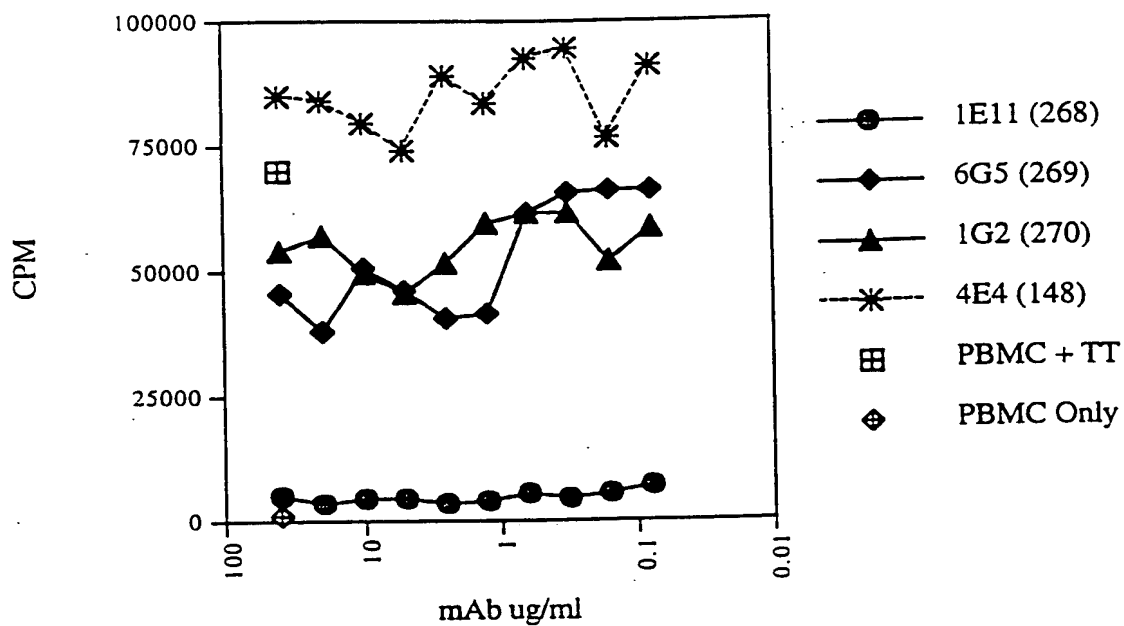
Study Day

HuMAb	Half-life (hr)	
	α	β
1E11	20	240
6G5	3.7	39
1G2		14

003217 5964260

Figure 96

TT 9/6/96 anti-CD4 Preps



TT 10/2/96 anti-CD4 Preps

